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DEPARTMENT OF BUSINESS
AND ECONOMIC DEVELOPMENT

QUARTERLY

STATISTICAL & ECONOMIC REPORT

RESEARCH & ECONOMIC ANALYSIS DIVISION

- The Economy: Recent Trends and Outlook
- Hawaii's Interests in International Trade Issues
- Population Distribution in Hawaii: 1988
- Statistical Tables

4th QUARTER 1989

STATE OF HAWAII 1959

This quarterly report has been prepared by the Research and Economic Analysis Division of the State Department of Business and Economic Development (DBED). It presents information and analysis concerning current statistical and economic trends affecting Hawaii. Technical notes and source descriptions have been kept to a minimum. However, the staff of the Research and Economic Analysis Division will be happy to respond to any inquiries of a technical nature that readers may have (548-3067).

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1. THE ECONOMY - RECENT TRENDS AND OUTLOOK

Strong economic growth continued in the State through the first nine months of the year. But signs were appearing that the boom may have peaked for this cycle and some slowing could be expected in 1990.

Nationally, the economy settled into a slower rate of growth but with less danger of a recession in the near future. However, concern and instability in the financial markets caused by the size and quality of U.S. corporate debt tempered the outlook.

The outlook for Hawaii anticipates slower growth for tourism in 1990 but only slightly slower growth for the State's economy overall as strength in construction activity continues to buoy other sectors.

Current Economic Conditions

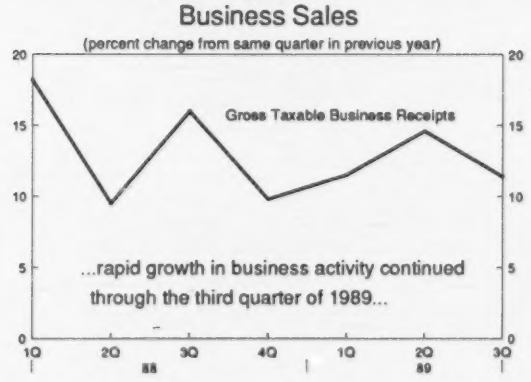
Hawaii's economy has continued its rapid rate of expansion into the last half of 1989. Continued strength in tourism coupled with an unrelenting surge in construction activity have led the upswing which is now in its fifth year. Hawaii's economy became the focus of national attention this past summer when data from the U.S. Department of Labor ranked the State lowest in the nation with respect to unemployment. However, while construction activity and authorizations for future construction remained strong, a change in the mix and some slowing in the growth rate of tourism to the Islands was evident as the year progressed.

Visitor Industry

Above average growth in the visitor industry has provided the underlying confidence for accelerated investment in both tourism and nontourism sectors of the State's economy in recent years. However, this past year the source of tourism growth shifted away from the rapid increase in eastbound visitors and towards westbound tourism.

For the first nine months of 1989, total visitor arrivals were up a substantial 8.7 percent by preliminary count. However, eastbound tourism from the Orient and

Figure 1-1



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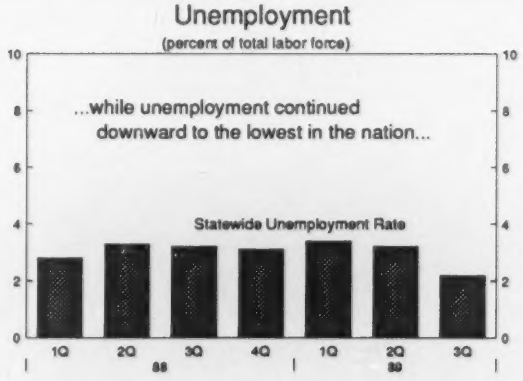

Pacific, the strongest sector in recent years, slowed to just 5.3 percent over the same 1988 period. Further, the third quarter total for eastbound visitors showed only a 1.2 percent increase from the same 1988 period. Dominating eastbound tourism is the Japan market which had been growing tremendously in both numbers and per visitor expenditures since 1986. A slowdown in this market had been predicted due to the recent rise in the value of the dollar and the unsustainable high growth of the past few years.

More than countering the slowdown in the eastbound market has been a resurgence the basic westbound market dominated by mainland U.S. visitors. While some improvement in the westbound market was expected this year after a two-year period of no net growth, the magnitude of the rebound has been surprising for such a mature market. The number of visitors from this market segment is up 10.3 percent for the first nine months of the year, and 11.4 percent in the third quarter.

While the numbers are up, the actual economic impact of the increase is problematical. Spending by westbound visitors tends to be considerably below that of eastbound visitors while they are in Hawaii. Thus while the numbers are up the income from tourism is not likely up as much for the State as a whole.

Still, these westbound visitors tend to visit the Neighbor Islands proportionately more than eastbound visitors so while total visitor spending in 1989 may not be growing as fast as the visitor count, it is probably being distributed more equitably around the State. The magnitude of that spending will not be available until the Hawaii Visitors Bureau finalizes its estimates, sometime next year.

Construction

The other contributor to Hawaii's five-year economic surge has been the construction industry (or more precisely investment in residential and commercial facilities), spurred in large part by the tourism boom. Most of the funds for construction are acquired from outside the state and have a significant impact on overall economic activity. Since the industry's recovery in 1985 from the recession of early 1980s, the value of construction has increased between 17 and 26 percent per year in current dollars (which does not take into account the effects of inflation).

For the first nine months of 1989, construction value has been 26 percent ahead of the previous year. Current dollar construction value in the State will easily pass the $3 billion mark in 1989, only two years after passing the $2 billion mark.

Figure 1-3
Visitor Arrivals
(annualized quarterly totals)

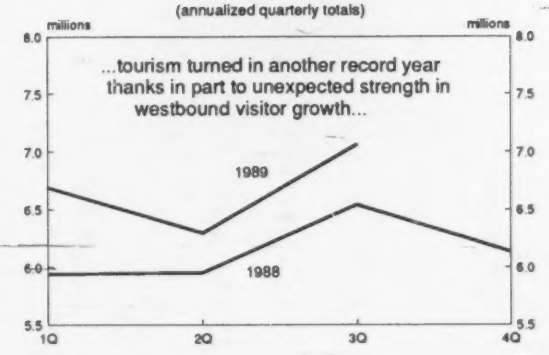

Figure 1-4
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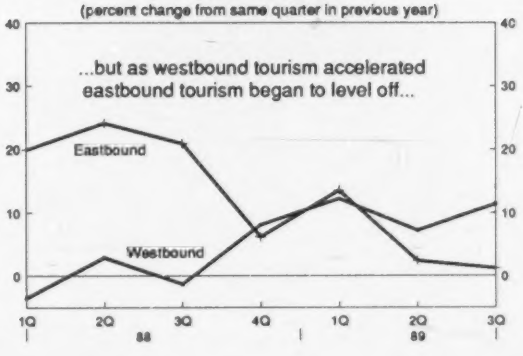
(percent change from same quarter in previous year)



All major sectors of construction--residential, commercial and government--have been very strong. More recently, work on additions and alterations of existing structures has also shown significant growth.

As impressive as the current rate of construction is, permit authorization data by type of construction shows no letup in the rate of building in the near future. Total new permit authorizations taken out in the first three quarters of this year for work to begin in the near future were 45 percent above the same period in 1988.

As a result of this activity, employment in the construction industry was up 16 percent during the first nine months of 1989 from the same 1988 period. The number of construction jobs in September 1989 reached 28,100 by preliminary count, its highest level since 1974 and close to an all-time high. (Details on the characteristics of construction underway can be found in chapter 7).

Defense Activity

Expenditures by the three major branches of the military in Hawaii, second only to tourism in terms of outside income earned for the State, showed expected modest growth in early 1989, after less than 2 percent growth (in current dollars) in 1988. For the first time in memory Army expenditures exceeded combined Navy/Marine spending in the State as reported by local accounting offices of the military services. This trend may reverse with the homeporting of the cruiser USS Reeves at Pearl Harbor in 1991. Hawaii's ship repair industry is also hopeful that a major battleship group may be homeported in Pearl Harbor within the next several years, a factor which could stabilize or reverse a marked decline in Naval ships homeported at Pearl Harbor over the past decade.

Sugar and Pineapple

The estimated value of both sugar and pineapple products declined in 1988. Sales of raw sugar and molasses totaled $324 million in 1988, down 3.5 percent from the year before, while the total of fresh and canned pineapple production declined 1.9 percent to $247 million. Employment in both those industries has also been on the decline; down 2.9 percent for sugar and 3.8 percent for pineapple in 1988 (combined field and processing employment). Preliminary job count data for 1989 showed continued declines in employment for both industries. Sugar field and processing jobs declined 7.5 percent to 6,200 in the first nine months of 1989, while pineapple jobs declined 6.4 percent to 3,650. It is not clear whether the declines represent lower production levels or to what extent Hawaii's labor shortage might be responsible for the declines.

Figure 1-5
Construction Activity

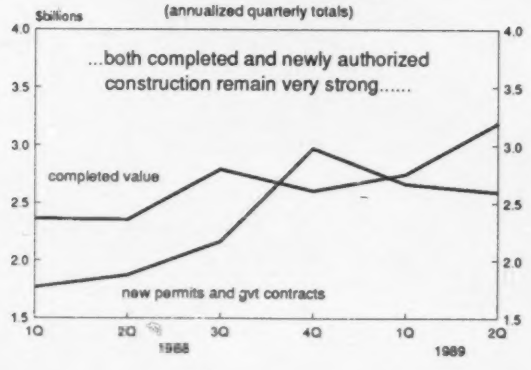
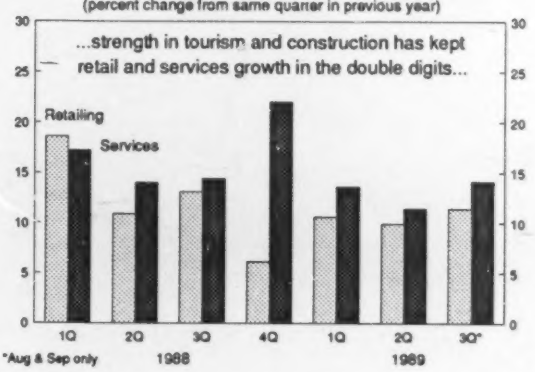


Figure 1-6
Retailing and Services Growth
(percent change from same quarter in previous year)



General Business Conditions

The continued rapid expansion of tourism and construction activity have kept business in almost all other sectors of the economy brisk through the first eight months of the year. The total value of business sales in the state subject to general excise tax was up 13 percent in the first eight months of the year compared to the same 1989 period. The 26 percent increase shown by construction was the major contributor to increases in excise tax collections. Service industries other than hotels showed an overall 12.9 percent increase in the first eight months while retailing was up 10.5 percent. Diversified manufacturing showed a gain of 11.1 percent, while diversified agriculture sales lagged behind the average at 3.5 percent, down substantially from its 16.7 percent increase in 1988.

Oddly, hotels were among the poorest performing businesses. Receipts in this sector showed just a 2.4 percent increase in the first eight months of the year. This followed a below average performance of 6.1 percent in all of 1988. It is not clear why overall revenue growth is so low, given the strong visitor count.

Employment & Income

Given the strong economic performance in the economy it is no surprise that the job count is reflecting this growth. Preliminary data from the State Department of Labor indicate that the number of jobs in the State's economy for the first nine of the year was up 2.9 percent from the same 1988 period, an increase of about 15,300 jobs. Wage and salary jobs outside of agriculture were up 3.4 percent by preliminary estimate. Next to the 16.0 percent increase in construction, hotel employment showed the sharpest gains during the first three quarters of the year, up 9.0 percent. This perhaps reflects additional staffing for the recent addition of upscale and more labor intensive hotels to the statewide hotel room count.

Labor shortages, primarily at the entry level, have been reported in many industries. These have been the consequence of both the rapid increase in the economy and a dwindling number of young people entering the labor force.

The State's total personal income in the second quarter of 1989 jumped 10.3 percent above the same quarter a year earlier to a seasonally adjusted annual rate of $19.9 billion.

Consumer Prices

Honolulu consumer prices as measured by the Consumer Price Index for all Urban Consumers (CPI-U) showed a 5.2 percent increase in the first half of 1989 compared to a year earlier. This was below the 6 percent projected for Honolulu in 1989 and an

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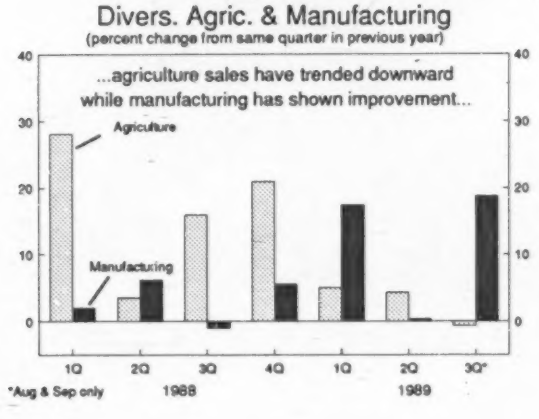

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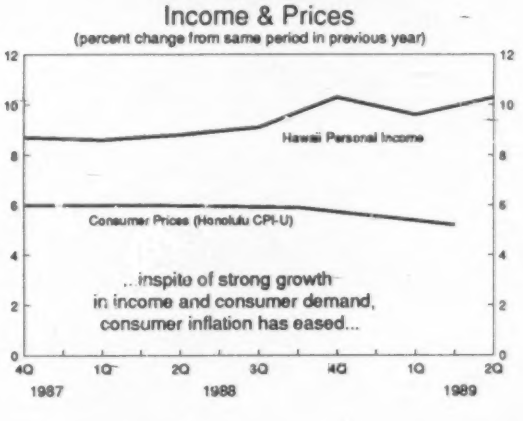


indication that Hawaii's rapid pace of growth may not be fueling inflation as much as had been feared, at least from the point of view of Honolulu consumers. However, business costs and the costs of housing are not adequately reflected in the CPI-U. The sharpest increase during the first half was a 6.7 percent increase in transportation costs which probably reflects the surge in gasoline prices earlier in the year. The smallest increase was in apparel and upkeep, up only 0.4 percent.

National Economic Conditions

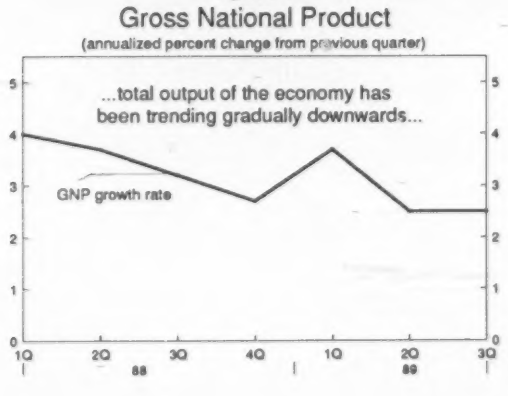
Preliminary estimates indicated that Real Gross National Product (GNP) grew at an annual rate of 2.5 percent in the third quarter of 1989. This is about what the Blue Chip Consensus forecast had anticipated, although several and perhaps significant revisions to the preliminary GNP estimate in the coming months would not be surprising, given recent experience with this data series.

Many economists are crediting the Federal Reserve with engineering a "soft landing" of the economy by keeping moderate upward pressure on interest rates in spite of the Bush Administration's preferences for somewhat easier credit. The Federal Reserve Board and Administration have been at odds over what should be given higher priority, inflation or recession, with the FRB leaning towards inflation but wary of recession. The FRB has eased up on interest rates. It did this in the second quarter when it appeared that the economy was headed for a recession, and again in the fourth quarter when it appeared earlier easing was not enough. A slower growing economy will release inflationary pressures and promote industry efficiency to keep costs down and productivity up.

Industrial performance has generally been good except for a second half slump in auto sales. The best economic news at the national level over the past year has been the reduction in the nation's trade deficit. In 1989 the U.S. will import about $59 billion more than it exports. However, this is down significantly from a $75 billion deficit in 1988 and $116 billion in 1987. As table 1-1 shows, that could drop to $47 billion by 1991 with the slower growing economy. Only slow progress has been made on the Federal budget deficit however, as Congress and the Administration have experienced difficulty over the past three years moving below the $150 billion level.

The ominous backdrop to the outward appearance of stability, however, is the huge level of corporate debt incurred in the process of many multi-billion dollar buy-outs over the past several years. This debt level has been identified as the major reason for recent volatility in the stock market. Economists fear that even a mild downturn in the economy could leave many businesses without the income to pay their quarterly

Figure 1-9



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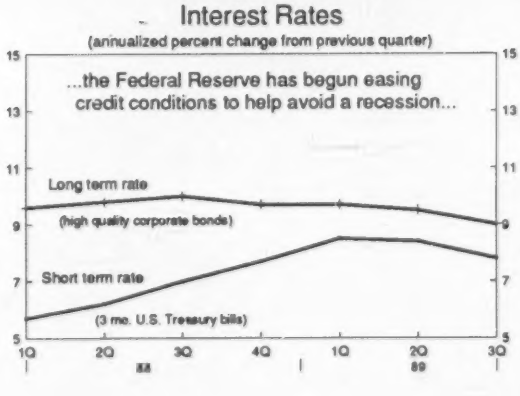


bond premiums, which could trigger instability in the financial markets and a more serious decline in business activity. Recognition of this threat on one hand, and the observation that inflation is higher than desirable on the other, has kept the FRB walking a policy tightrope.

Economic Outlook and Forecasts

Outlook for 1990

Most mainstream forecasters of national economic activity think that while the nation may not undergo a recession in the near future, it will experience a year of below normal growth in 1990. As summarized in Table 1-1, an average of about fifty national forecasts indicates that real GNP may grow only 1.8 percent in 1990, compared to the estimated 2.8 growth rate in 1989. This slowing will allow inflation and interest rates to decline slightly. However, it will also result in a slightly higher unemployment rate and cut the gain in real disposable personal income to just 1.8 percent, down from 3.7 percent this year. An average of the ten most optimistic forecasts for 1990 showed a growth rate of only 2.8 percent. The most pessimistic ten forecasts anticipate only a 0.6 percent growth rate of the economy in 1990. The official projection on 1990 growth from the Bush Administration is 2.4 percent.

DBED's economic outlook for Hawaii for the near future years is presented in summary in table 1-2. More detailed results of DBED's computer based forecasting model through 1995 are presented in tables 1-3 to 1-5.

Slower growth nationally does not necessarily mean substantially slower growth in Hawaii, but will likely dampen the aggressive expansion of the past several years. Coincidentally, the robust, double-

Table 1-1

U.S. Economic Forecast to 1991

	Forecast					Estimate	Forecast	
	4Q'89	1Q'90	2Q'90	3Q'90	4Q'90	1989	1990	1991
	Quarterly data					Annual data		
Annualized % growth rates								
Real GNP	1.4	1.6	1.7	2.0	2.4	2.9	1.8	2.3
Industrial production	1.1	1.0	1.7	2.3	2.8	3.3	1.7	2.5
GNP deflator	4.2	4.3	4.2	4.2	4.2	4.3	4.2	4.1
Consumer price index	4.4	4.4	4.5	4.4	4.4	4.9	4.4	4.3
Producer price index	3.5	3.7	3.7	3.8	3.8	5.3	3.5	n.a.
Real disposable income	1.9	1.5	1.6	2.0	2.3	3.8	1.9	2.2
Corp. pretax profits	n.a.	n.a.	n.a.	n.a.	n.a.	-3.5	0.4	5.9
Housing Starts	n.a.	n.a.	n.a.	n.a.	n.a.	-4.7	2.1	2.1
Net exports	1.5	3.3	2.2	2.5	4.1	30.2	9.9	16.1
Ave. % rate for period								
Unemployment rate	5.3	5.5	5.5	5.6	5.6	5.3	5.6	5.7
3-mo.Treas. bill rate	7.7	7.4	7.3	7.3	7.4	8.1	7.3	6.9
AAA corp. bond rate	8.9	8.8	8.7	8.7	8.8	9.3	8.8	8.8

n.a. not available

Source: Eggert Economic Enterprises, Inc., "Blue Chip Economic Indicators", October 10, 1989

Table 1-2
SUMMARY OF HAWAII FORECAST TO 1991

	Estimate 1989	% Change	Forecast 1990	% Change	Forecast 1991	% Change
Gross State Product						
Millions of current dollars	23,974	10.8	25,896	8.0	27,942	7.9
Millions of constant 1982 dollars	18,332	5.5	18,949	3.4	19,566	3.3
GSP deflator index (1982=100)	130.8	5.0	136.7	4.5	142.8	4.5
Visitor arrivals (millions)	6.6	8.0	6.8	2.0	7.0	3.5
Consumer Price Index (CPI-U) (1982-84=100)	128.4	5.5	134.8	5.0	140.9	4.5
Personal Income						
Millions of current dollars	20,251	10.1	21,972	8.5	23,696	7.8
Millions of constant 1980 dollars	13,084	4.3	13,519	3.3	13,952	3.2
Total Jobs (thousands)	543.2	3.8	559.1	2.9	573.4	2.6
Construction, real value (constant 1972 dollars)	991.4	10.5	1,067.5	7.7	n.a.	n.a.

Source: Department of Business and Economic Development, Hawaii Econometric Modeling Project, December 1989.

digit growth rate of Japanese visitors over the past four years has already shown a marked slowdown as the yen's value has fallen roughly 10 percent against the dollar since last year. DBED expects tourism to slow in 1990 as a result of these factors, to a 2 percent growth rate in terms of total visitor arrivals. The U.S. visitor market should slow to about 2.5 percent in 1990, with the Japan market showing about 1 percent growth. With 5,800 additional visitor rooms anticipated to join the inventory in 1989 and 1990, this slower growth is bound to be reflected in lower occupancy rates.

Construction will continue to show good gains in 1990 but at a slightly slower growth rate of about 8 percent. This year's large volume of authorizations will provide plenty of work for this industry over the next 12 to 18 months.

Defense expenditures may show better than modest gains in 1989 as the U.S.S. Reeves is stationed in Hawaii in mid-1990 and if work proceeds on preparing Pearl Harbor for the ultimate stationing of a major battleship group.

Sugar and pineapple will likely continue their slow declines in employment if not production. However, the sugar industry faces a challenge in Congress in 1990 with the Farm Act up for renewal. The act currently protects the U.S. sugar industry from government subsidized foreign sugar through a quota-based price support system along with loan guarantees. Major sugar refiners and users have consistently opposed sugar's retention in the Farm Act, in order to have unlimited access to under-valued surplus sugar on the world market. A major reason for substantially lower prices in the world sugar market is excess sugar dumped into it from countries that subsidize their own growers. The loss is made up by consumers in those countries who are forced to pay inflated prices for the refined sugar they consume.

The overall impact on the State's economy of these anticipated conditions in prime markets is expected to be more modest growth in jobs and income in the coming year. From an estimated 3.8 percent growth rate in 1989, total jobs will slow to 2.9

Figure 1-11

National Outlook: Nearterm

(annualized percent change from previous quarter)

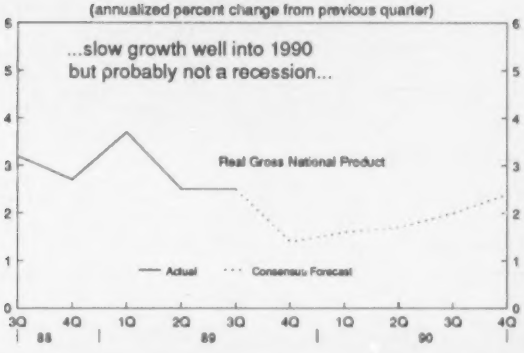
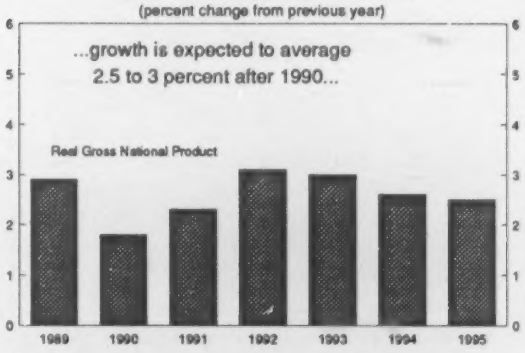


Figure 1-12

National Outlook: To 1995

(percent change from previous year)



percent in 1990. Total personal income, which will probably see about a 10.1 percent increase in 1989, will slow to about 8.5 percent in 1990.

1991 and Beyond

Looking beyond 1990, the national outlook is for a gradually improving economic environment if the Federal deficit declines and the nation's trade balance improves. While the scenario is very tentative at this time, the Blue Chip consensus forecast foresees a recovering economy in 1991 and 1992 with the economy settling into more long run growth patterns thereafter. The consensus anticipates a real GNP growth rate improving from 2.3 in 1991 to 3.1 percent in 1992. The rate of growth slows gradually each year after that to about 2.5 percent by 1995. Interestingly, while the consensus forecast anticipates slowing in economic activity next year, it does not expect a return to the low, 2 to 3 percent inflation rates of the mid 1980s. In fact, little change in inflation from an average 4.3 percent is anticipated through 1995. Likewise, interest rates are anticipated to remain near current levels, with long term, high quality (Aaa) bonds averaging 8.8 percent and short-term, three-month Treasury Bills averaging 6.9 percent.

What such a stable forecast implies is that beyond the expectation of a modest slowdown in 1990, there are no clearly

Figure 1-13

Hawaii Outlook: Tourism

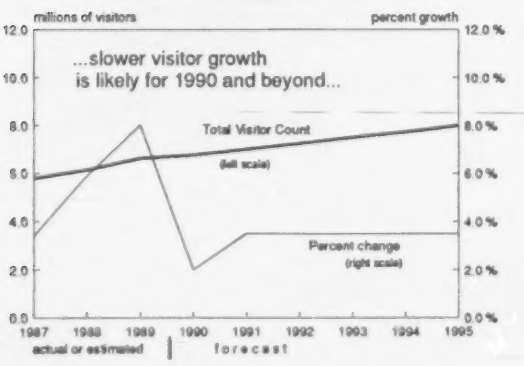
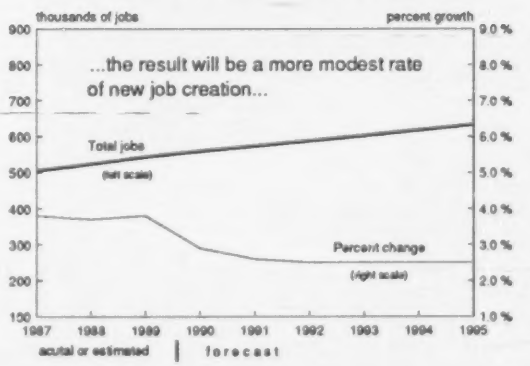


Figure 1-14

Hawaii Outlook: Jobs Growth



discernible factors that would prevent the economy from bouncing back in 1991 and making up for the lower than normal activity in 1990 before settling into a long term growth pattern. However, factors which could cause either accelerated growth or even recession can, and often do, appear with little warning and prompt a complete reassessment of the forecasts.

The outlook for Hawaii beyond 1990 anticipates a return to more long-run growth rates for the economy. This would suggest job growth averaging about 2.7 percent through 1995 and growth in real personal income declining slowly from 3.2 percent in 1991 to 2.8 percent in 1995. Consumer prices are assumed to follow Mainland trends at about 4.5 percent per year.

The long-term real growth for construction put-in-place is expected to average about 4.0 percent beyond 1990. However, construction is a volatile industry which rarely tracks closely with its average from year to year. A modest cooling off of the State's economy in 1990 could trigger a decline in commercial construction in 1991 and 1992. This would be especially a concern if a slowing visitor count results in a significant decline in the overall hotel occupancy rate. This could result in a number of big resort development plans being put on the shelf until more favorable visitor growth is experienced. On the other hand, government and residential construction may not be affected by a slowdown and continue to show strong gains, perhaps counteracting declines in commercial construction. It will probably be well into 1990 before the outlook for construction beyond that year can be forecast with more confidence.

The DBED short- and intermediate-term forecasts are updated as conditions change and more data on current trends are reviewed.

DBED

INTERMEDIATE RANGE ECONOMIC FORECAST FOR HAWAII 1990 to 1995

DECEMBER 1989

TABLE 1-3
KEY ECONOMIC ASSUMPTIONS

	1987	1988	1989	1990	1991	1992	1993	1994	1995
Value	Actual		Estimate	Forecast					
HONOLULU CPI-U (1967=100)	114.9	121.7	128.4	134.8	140.9	147.2	153.8	160.8	168.0
VISITOR ARRIVALS (THOUS)	5,798	6,140	6,631	6,763	7,000	7,245	7,499	7,724	7,994
TOTAL POPULATION (THOUS)	1,082	1,098	1,115	1,133	1,151	1,171	1,190	1,211	1,231
MORTGAGE RATE (%)	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
PRIME RATE (%)	8.5	8.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
REAL GNP GROWTH(%) 1/	3.4	3.8	2.7	1.8	2.3	3.1	3	2.6	2.5
Annual percent growth									
HONOLULU CPI-U	5.0	5.9	5.5	5.0	4.5	4.5	4.5	4.5	4.5
VISITOR ARRIVALS	3.4	5.9	8.0	2.0	3.5	3.5	3.5	3.5	3.5
TOTAL POPULATION	1.7	1.5	1.5	1.6	1.6	1.7	1.7	1.7	1.7

1/ "Blue Chip Economic Indicators" October 10, 1989.

Source: Research and Economic Analysis Division, Department of Business and Economic Development, Hawaii Econometric Forecasting Project, December 1989.

TABLE 1–4

PROJECTED PERSONAL INCOME AND COMPONENTS

CURRENT DOLLARS

	1988	1989	1990	1991	1992	1993	1994	1995
	Actual	Estimated	Forecast					
Millions of dollars								
PERSONAL INCOME	18,398.8	20,250.9	21,971.6	23,695.5	25,526.0	27,496.4	29,720.8	32,051.7
NET EARNINGS OF RESIDENTS	13,219.6	14,642.9	15,932.2	17,218.0	18,593.5	20,075.6	21,759.9	23,506.6
LABOR INCOME	12,778.1	14,182.0	15,410.8	16,643.1	17,970.5	19,401.9	21,039.0	22,716.8
WAGES & SALARIES	11,751.7	13,032.7	14,153.8	15,278.2	16,489.3	17,795.3	19,289.0	20,819.9
OTHER	1,026.4	1,149.4	1,257.0	1,364.9	1,481.2	1,606.6	1,750.0	1,896.9
PROPRIETORS' INCOME	1,349.8	1,489.9	1,655.3	1,813.9	1,975.8	2,149.7	2,338.8	2,553.3
LESS: SOCIAL INSUR. TAXES	(908.3)	(1,029.0)	(1,133.9)	(1,239.0)	(1,352.8)	(1,476.0)	(1,617.9)	(1,763.5)
PROPERTY INCOME	2,723.6	2,924.4	3,117.5	3,311.3	3,518.0	3,738.5	3,989.7	4,241.9
TRANSFER PAYMENTS	2,455.6	2,683.7	2,921.9	3,166.2	3,414.5	3,682.3	3,971.2	4,303.2
Annual (%) growth rates								
PERSONAL INCOME	9.2	10.1	8.5	7.8	7.7	7.7	8.1	7.8
NET EARNINGS OF RESIDENTS	9.3	10.8	8.8	8.1	8.0	8.0	8.4	8.0
LABOR INCOME	9.9	11.0	8.7	8.0	8.0	8.0	8.4	8.0
WAGES & SALARIES	9.8	10.9	8.6	7.9	7.9	7.9	8.4	7.9
OTHER	11.4	12.0	9.4	8.6	8.5	8.5	8.9	8.4
PROPRIETORS' INCOME	7.3	10.4	11.1	9.6	8.9	8.8	8.8	9.2
LESS: SOCIAL INSUR. TAXES	14.3	13.3	10.2	9.3	9.2	9.1	9.6	9.0
PROPERTY INCOME	10.7	7.4	6.6	6.2	6.2	6.3	6.7	6.3
TRANSFER PAYMENTS	3.2	9.3	8.9	8.4	7.8	7.8	7.8	8.4

CONSTANT DOLLARS

	1988	1989	1990	1991	1992	1993	1994	1995
	Actual	Estimated	Forecast					
Millions of 1980 dollars								
PERSONAL INCOME	12,547.5	13,083.5	13,519.2	13,952.1	14,382.7	14,825.8	15,262 0	15,699.2
NET EARNINGS OF RESIDENTS	9,010.5	9,460.3	9,803.1	10,138.1	10,476.6	10,824.6	11,174.0	11,525.4
LABOR INCOME	8,709.6	9,162.6	9,482.3	9,799.6	10,125.5	10,461.3	10,803.8	11148.600
WAGES & SALARIES	8,010.0	8,420.0	8,708.9	8,995.9	9,290.9	9,595.1	9,905.1	10,217.2
OTHER	699.6	742.6	773.4	803.7	834.6	866.3	898.6	931.4
PROPRIETORS' INCOME	920.0	962.6	1,018.5	1,068.0	1,113.3	1,159.1	1,201.0	1,243.6
LESS: SOCIAL INSUR. TAXES	(619.1)	(664.8)	(697.7)	(729.5)	(762.2)	(795.8)	(830.8)	(866.9)
PROPERTY INCOME	1,863.2	1,889.4	1,918.2	1,949.7	1,982.2	2,015.8	2,048.8	2,080.5
TRANSFER PAYMENTS	1,673.7	1,733.9	1,797.9	1,864.3	1,923.9	1,985.5	2,039.3	2,093.3
Annual (%) growth rates								
PERSONAL INCOME	3.2	4.3	3.3	3.2	3.1	3.1	2.9	2.9
NET EARNINGS OF RESIDENTS	3.2	5.0	3.5	3.3	3.2	3.2	3.1	3.1
LABOR INCOME	3.8	5.2	3.5	3.3	3.3	3.3	3.3	3.2
WAGES & SALARIES	3.7	5.1	3.4	3.3	3.3	3.3	3.2	3.2
OTHER	5.2	6.1	4.2	3.9	3.8	3.8	3.7	3.6
PROPRIETORS' INCOME	1.3	4.6	5.8	4.9	4.2	4.1	3.6	3.6
LESS: SOCIAL INSUR. TAXES	8.0	7.4	4.9	4.6	4.5	4.4	4.4	4.3
PROPERTY INCOME	4.9	1.4	1.5	1.6	1.7	1.7	1.6	1.6
TRANSFER PAYMENTS	-2.5	3.6	3.7	3.7	3.2	3.2	2.7	2.6

Source: Department of Business and Economic Development, Hawaii Econometric Modeling Project, December 1989.

TABLE 1-5
PROJECTED EMPLOYMENT (JOBS) BY SECTOR

	1987	1988	1989	1990	1991	1992	1993	1994	1995
		Actual or Estimate				Forecast			
Thousands									
TOTAL JOBS	505.0	523.5	543.2	559.1	573.4	587.9	602.6	617.9	633.4
CONSTRUCTION	21.2	23.1	26.3	28.0	28.0	28.0	28.0	28.0	28.0
MANUFACTING	21.9	22.3	22.8	22.9	23.0	23.1	23.1	23.2	23.3
DURABLE	4.0	4.3	4.6	4.8	4.9	5.0	5.1	5.2	5.3
NONDURABLE	18.0	18.1	18.2	18.2	18.1	18.1	18.0	18.0	17.9
FOOD PROCESSING	10.0	10.3	10.1	10.0	9.8	9.7	9.6	9.5	9.4
OTHER	8.0	7.8	8.1	8.2	8.3	8.4	8.4	8.5	8.5
TRANSPORTATION	26.9	28.2	29.7	30.1	30.8	31.6	32.4	33.2	34.0
COMMUNICATIONS & UTIL.	9.9	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
TRADE	123.8	127.6	132.2	136.2	140.3	144.5	148.7	153.1	157.6
RETAIL	103.4	107.1	111.3	115.0	118.7	122.5	126.4	130.4	134.5
EAT & DRINK	44.2	46.0	48.2	49.7	51.4	53.3	55.2	57.2	59.3
WHOLESALE	20.4	20.6	20.9	21.2	21.6	21.9	22.3	22.7	23.2
FINANCE/INSUR/REAL EST.	33.7	34.8	35.3	36.5	37.8	39.1	40.5	42.0	43.5
SERVICES	126.5	132.3	138.5	143.8	148.8	153.7	158.6	163.6	168.7
HOTELS	31.3	34.5	34.7	34.7	35.3	35.9	36.5	37.2	37.9
GOVERNMENT	96.1	99.1	101.4	103.9	106.4	109.0	111.8	114.6	117.5
FEDERAL	32.8	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
STATE & LOCAL	63.3	65.7	67.9	70.4	72.9	75.5	78.3	81.1	84.0
AGRICUL. (WAGE & SALARY)	10.6	10.0	10.0	10.1	10.1	10.1	10.1	10.2	10.2
SUGAR	3.8	3.7	3.6	3.5	3.4	3.3	3.2	3.1	3.0
PINEAPPLE	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
DIVERSIFIED	4.8	4.6	4.5	4.7	4.8	4.9	5.0	5.1	5.3
SELF-EMPLOYED	34.4	36.4	37.2	37.8	38.4	39.0	39.6	40.2	40.8
Annual % growth									
TOTAL JOBS	3.8	3.7	3.8	2.9	2.6	2.5	2.5	2.5	2.5
CONSTRUCTION	13.4	8.7	14.0	6.4	0.0	0.0	0.0	0.0	0.0
MANUFACTING	0.9	1.8	2.2	0.4	0.4	0.4	0.0	0.4	0.4
DURABLE	10.5	7.6	8.2	4.3	2.1	2.0	2.0	2.0	1.9
NONDURABLE	-1.1	0.8	0.6	0.0	-0.5	0.0	-0.6	0.0	-0.6
FOOD PROCESSING	-1.0	3.5	-1.9	-1.0	-2.0	-1.0	-1.0	-1.0	-1.1
TEXTILES	0.0	-2.5	3.8	1.2	1.2	1.2	0.0	1.2	0.0
TRANSPORTION	11.1	4.8	5.3	1.3	2.3	2.6	2.5	2.5	2.4
COMMUNICATIONS & UTIL.	0.0	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRADE	4.9	3.1	3.6	3.0	3.0	3.0	2.9	3.0	2.9
RETAIL	4.9	3.6	3.9	3.3	3.2	3.2	3.2	3.2	3.1
EAT & DRINK	4.6	4.1	4.8	3.1	3.4	3.7	3.6	3.6	3.7
WHOLESALE	4.6	1.0	1.5	1.4	1.9	1.4	1.8	1.8	2.2
FINANCE/INSUR/REAL EST.	1.5	3.3	1.4	3.4	3.6	3.4	3.6	3.7	3.6
SERVICES	6.4	4.6	4.7	3.8	3.5	3.3	3.2	3.2	3.1
HOTELS	5.8	10.4	0.6	0.0	1.7	1.7	1.7	1.9	1.9
GOVERNMENT	2.3	3.2	2.3	2.5	2.4	2.4	2.6	2.5	2.5
FEDERAL	2.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STATE & LOCAL	2.4	3.8	3.3	3.7	3.6	3.6	3.7	3.6	3.6
AGRICUL. (WAGE & SALARY)	4.0	-5.2	0.0	1.0	0.0	0.0	0.0	1.0	0.0
SUGAR	-5.0	-2.6	-2.7	-2.8	-2.9	-2.9	-3.0	-3.1	-3.2
PINEAPPLE	-5.0	-5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIVERSIFIED	17.1	-4.2	-2.2	4.4	2.3	2.2	2.2	2.2	2.2
SELF-EMPLOYED	-9.5	5.8	2.2	1.6	1.6	1.6	1.5	1.5	1.5

Source: Department of Business and Economic Development, Hawaii Econometric Forecasting Project, December 1989.

2. HAWAII'S INTERESTS IN INTERNATIONAL TRADE ISSUES

Future growth in Hawaii's economy may depend to an increasing extent on access to foreign markets, and on competition from foreign producers for shares of the U.S. market. The State and its Congressional delegations constantly monitor forums in which trade issues important to Hawaii will be decided. This report identifies several of these key forums and attempts to highlight Hawaii's interests.

Hawaii's economy has always been highly dependent on exports to domestic and foreign markets. These exports include such tangible exports as sugar, pineapple, and diversified products, and service exports of which tourism is the prime example. Increasingly, these important export markets have extended to the growth areas of Asia and Europe.

Unlike the fairly straight-forward access to the markets of the other 49 States, Hawaii's ability to do business in foreign markets is defined by complex trade regulations. Such regulations are established either by the U.S. and foreign governments unilaterally, through bilateral trade agreements worked out between trade representatives of the United States and specific foreign governments, or through multilateral trade agreements worked out among representatives of many nations simultaneously. These regulations and agreements determine whether Hawaii can be competitive in a foreign market for any particular good or service. They also determine what kinds of foreign competition Hawaii will experience in its own domestic markets. Further, trade regulations and agreements are subject to influence by the many interests affected by them. This influence can take many forms ranging from direct influence on the agencies formulating the regulations or agreements, to influence through the legislative process.

Due to the importance of trade for Hawaii, it is not surprising that the State government, industry associations, and the State's Congressional delegations closely monitor, coordinate with one another, and respond to proposed changes in trade laws, regulations, and treaties.

While there are literally hundreds of changes each year in trade-related laws, regulations and treaties that affect Hawaii's interests, five particularly important forums for making major changes to exiting trade arrangements are the subject of this report. They are:

1. Legislation reauthorizing the U.S. Farm Act, which will be submitted by the Administration to Congress late this year or early in 1990.

2. The "Uruguay Round" of negotiations under the General Agreement on Tariffs and Trade (GATT).

3. The Caribbean Basin Initiative (CBI); unilateral U.S. legislation proposed in Congress.

4. The Europe 1992 program of the European Economic Community (EC).

5. U.S./Canada Free Trade Agreement (FTA); bilateral trade agreement between Canada and the U.S.

Hawaii's interests and concerns will be summarized under the following discussion of each of these forums.

The 1990 U.S. Farm Bill

Sometime near the end of 1989 the Bush Administration will submit to Congress its proposed replacement for the existing U.S. Farm Act which will expire in 1990. The Farm Bill specifies the nation's interest and support for domestic agriculture. Since the early 1980s, the Farm Act has provided support for the domestic sugar industry in the

form of quotas on foreign sugar and an effective floor on raw sugar prices through a special, nonrecourse loan program for producers. The sugar industry is still very important to Hawaii's economy, especially on the Neighbor Islands, and provided jobs to over 6,300 people in 1989.

The primary reason for protecting U.S. sugar is that many other sugar exporting nations subsidize their producers. The subsidies are often paid by the consumers of those countries through exorbitant domestic prices while the unsold sugar from these countries is dumped on the international sugar market at prices well below the cost of production.

Large eastern U.S. sugar refiners and the major sweetener users would like access to this excess international sugar and have consistently opposed the inclusion of sugar in the Farm Bill. This group can again be expected to oppose sugar interests in Congress during reauthorization of the Farm Act.

Another difficulty sugar will face during debate on the Farm Bill will be provisions designed to address complaints by some foreign nations that the sugar quota system is in violation of agreements under GATT. Currently the U.S. fixes a ceiling on the amount of foreign sugar that can be imported into the U.S. in order to maintain a target market price of about 23 cents per pound. Quotas for filling this need are then allocated among a number of sugar producing countries. The Administration's trade representative has taken the position that as long as important foreign producers subsidize their domestic sugar industries, the U.S. must provide protection to its own sugar industry.

It is expected that the Administration's Farm Act reauthorization bill will attempt to address both this need and the complaints about the U.S. sugar quota system, perhaps by proposing a tariff system in place of existing quotas. A tariff system will complicate the problem of maintaining a stable market price for sugar and may penalize countries producing under existing quotas, such as the Philippines, and which depend upon the U.S. market. Other key items in the new legislation will be the floor price for sugar loans and the targeted market price to be maintained by either quotas or tariffs. Opponents of domestic sugar can be expected to argue for the lowest possible price levels.

The Uruguay Round of GATT

The GATT forum is a complex and comprehensive series of negotiations among scores of industrial and nonindustrial nations with the objective of reducing trade barriers in a way that is mutually agreeable. It is currently in session under the "Uruguay Round" which began substantive sessions in April 1987 and is set to conclude by the end of 1990. The chief U.S. negotiator has been Ambassador Carla Hills who heads the Office of the U.S. Trade Representative (USTR).

To date, the issues most important to Hawaii in negotiations under the Uruguay round have concerned tropical agricultural products. There have been interesting developments in this particular area which will be reviewed later below.

Still to be negotiated in this round of talks are agreements on two issues of significant importance to Hawaii -- barriers to services trade and to foreign investment. With respect to investment, the U.S. Trade Representative is expected to propose the removal of investment barriers, which could significantly improve the extent to which U.S. companies can conduct business in other countries.

Discussions on reducing trade barriers in services trade is important to Hawaii for two major reasons. First, Hawaii's largest export is visitor services and the development of new international tourism markets is a priority objective. Diversifying the mix of future tourism would permit Hawaii to hedge against short term fluctuations in domestic tourism to Hawaii as well as a trend toward slower long-term growth in that market. The State has made the point to the U.S. Trade representative that foreign tourism to the U.S., which totaled over $29 billion in 1988, is an exceptionally good way to help reduce

the U.S. trade balance as well as assist states in diversifying their economic base. These current negotiations could well determine how effective the U.S. and active tourism States such as Hawaii can compete for the future global tourism market.

Secondly, these negotiations on services are important to Hawaii because of the future export potential of medical, legal, educational, financial, technological, and training services, to mention a few. Over the next year, GATT negotiators will develop the most comprehensive multilateral framework yet for the emerging area of service exports.

Thus far in the Uruguay round Hawaii's primary concern has been the impact of negotiations on the foreign and domestic sales of our tropical agricultural products, principally:

Sugar	Pineapples
Anthuriums	Dendrobium Orchids
Papayas	Macadamia Nuts
Fresh Ginger Root	Bananas
Coffee	

Apart from sugar and pineapple, a lessening of U.S. tariffs on the importation of the products listed above would impact negatively on Hawaii's Mainland sales of these same products; or in the case of bananas, which Hawaii does not sell to the Mainland, introduce increased competition for local sales. This past year the Office of the U.S. Trade Representative identified 49 tropical products for which the U.S. proposed to reduce import tariffs by 25 percent. The products listed above were not included on the USTR list. However, it is possible that other members of GATT could raise discussions on other products, including those important to Hawaii during the remaining course of the negotiations.

Sugar issues were not scheduled to be addressed during the Uruguay Round. However, based on a complaint by Australia, a GATT council found in June that quotas in the U.S. sugar program are in violation of GATT. Ambassador Hills was persuaded that the U.S. should not abandon its sugar program as long as major trading partners subsidize their own sugar industries. As indicated above, the Administration may attempt to address these GATT concerns in its proposed legislation for the reauthorization of the Farm Act in either late 1989 or early 1990.

With respect to pineapple, the Uruguay Round has resulted in an agreement by all countries to reduce quotas, and eventually tariffs, on canned pineapple products beginning in April 1990. Such reductions will likely have a mixed impact on Hawaii's pineapple industry. Initially they will tend to increase foreign competition and reduce domestic sales by Hawaii facilities. (Ironically, tariff reduction will probably help the market for Dole and Del Monte, which have significant foreign operations.)

On the other hand, the new agreement will mean an end to quotas and significant reductions in the exorbitant 55 percent ad valorem tariff Japan has maintained on foreign canned pineapple. This opens up a vast new market for the product. With Hawaii's expertise in marketing and its reputation for quality there may be opportunities for significant sales of Hawaii canned pineapple products in Japan in the coming years.

The Caribbean Basin Initiative

The original Caribbean Basin Initiative (CBI-I) was passed in 1983 as an Administration foreign policy initiative to promote economic development in the Caribbean region. That legislation has been up for renewal in Congress as H.R. 1233 or CBI-II. Under CBI-I, many of the products of qualifying Caribbean nations were permitted to enter the U.S. at significantly reduced tariff rates. A waiver from GATT was obtained to permit this.

CBI II proposes to broaden the scope of eligible products. It would also result in even lower tariffs on products coming from the Caribbean by allowing labor as well as material content of eligible products to be exempt from duties. The State's primary concern over CBI II is the potential introduction of plant pests and diseases

originating in Caribbean countries, which could be potentially devastating to the tropical agricultural industries of Hawaii, California, and Florida. The State is advocating that any new legislation contain strong provisions for inspection and quarantine.

The further reduction in duties under CBI II will certainly increase competition for Hawaii in the area of tropical fruits, flowers, and garments but not to a level that causes the State undue concern at the present time. Debate on the legislation has touched on the issue of increasing fabric quotas for CBI qualifying countries. Mainland producers of fabric have protested that if fabric quotas for the Caribbean are increased, quotas should be decreased elsewhere, particularly those allotted to Asia. The State is opposed to such a proposal. It would be a blow to Hawaii's garment industry by further restricting its access to Asian fabrics which are the mainstay of Hawaii's industry.

The CBI II would not directly affect the Sugar Program under the U.S. Farm Act. However, the minimum access levels given to Caribbean nations under the proposed CBI II could prompt a GATT challenge and create more pressure to change the sugar program against the interests of the domestic sugar industry.

The Europe 1992 Program

The twelve members of the European Economic Community (EC) have set 1992 as the year the long-awaited "common market" will emerge among them. Most barriers to the exchange of goods, services and resources will be eliminated. Such a unified European market of over 320 million people provides enhanced trading opportunities for the U.S. and Hawaii. Unified technical standards should help lower the costs of servicing the European market for U.S. and Hawaii producers, while rising incomes will increase demand for products and services. For Hawaii, rising incomes in Europe suggest increased tourism from that region and a bigger market for Hawaii's high quality tropical products.

The number of westbound visitors from Europe to Hawaii has been steadily increasing over the past few years. According to the Hawaii Visitors Bureau, Hawaii hosted 99,000 Europeans in 1986; 171,000 in 1987 and over 173,000 in 1988. These figures do not include the increasing number of Europeans who are travelling to Hawaii from Asia and the Pacific (eastbound direction). It is anticipated that these numbers will continue to grow with the integration of the EC economies.

However, there are several concerns which need to be monitored and addressed by our U.S. trade representatives as Europe moves to market unification in 1992. First, it must be assured that the EC common standards and procedures do not covertly protect European producers from outside competition.

Another concern, particularly from Hawaii's perspective, is a vital need for more air service, especially direct scheduled air service, between Europe and Hawaii. These arrangements are normally provided through bilateral negotiations between the U.S. and particular countries. Under European economic unification, all international flights among EC countries would become domestic flights. A European Commission is expected to meet in 1990 to prepare a set of regulations dealing with a common air transportation policy covering competition, air fares, capacity, and market access. It is as yet unclear how a unified Europe will negotiate air landing rights with outside nations. The State has therefore, stressed the importance of having our U.S. trade representatives monitor carefully the evolving internal agreements being made among the EC nations as 1992 approaches, in order to assert U.S. interests.

To plan for these emerging opportunities, Governor Waihee has formed special task forces on international aviation and expediting international arrivals.

The U.S./Canada Free Trade Agreement

Negotiated in 1988 and effective January 1, 1989, the U.S./Canada Free Trade Agreement (FTA) was designed to increase trade between the two countries in a broad range of products by eliminating or reducing tariffs between the two countries. While supporting the concept and elements of the FTA, the State has registered a serious concern that U.S. territories were excluded from the agreement. The State is also concerned about the status of State economic development programs under the treaty.

On the positive side, the agreement has provided for accelerated reduction of tariffs on a host of products which Hawaii can take advantage of. For example, the current Canadian tariff on cut flowers (25 percent ad valorem) is to be phased out gradually over a 10-year period. The reductions will increase the competitive advantage of Hawaii's cut-flower products in a significant market.

On the other hand, Hawaii has expressed strong disappointment that the U.S. territories were not included under the umbrella of the treaty. Thus, the products of Guam, Northern Marianas, and American Samoa do not have equal access to the Canadian market and Hawaii's ability to transact cross-Pacific trade is infringed. Former U.S. Trade Representative Ambassador Yeutter has indicated that the U.S. was seeking a separate understanding with Canada on behalf of the territories. However, there has been no progress on this issue to date. Hawaii is very anxious to see the Pacific territories achieve parity with the States regarding access to the Canadian market.

Another concern Hawaii and many states have with the FTA is its lack of clarity over what constitutes a "subsidy" to industry. One of the purposes of the treaty was to eliminate substantial state financial support to export industries and put similar industries in the two countries on a more equal competitive footing. However, the general terms were not well defined in the original agreement and talks between the two countries on this issue are continuing. If the concept of "subsidies" is defined too broadly, it could encompass and endanger a host of State economic development programs such as capital loan programs and tax incentives. This would obviously be very disruptive to the programs of almost all of the states.

As international trade becomes a more dominant factor in both the national and state economies, increased awareness and vigilance is necessary to insure that competition is fair and that equal access to markets is assured. As the above discussion indicates, the State has and will continue to devote considerable time and effort toward monitoring international trade arrangements and their potential impact on Hawaii.

3. INCOME AND PRICES

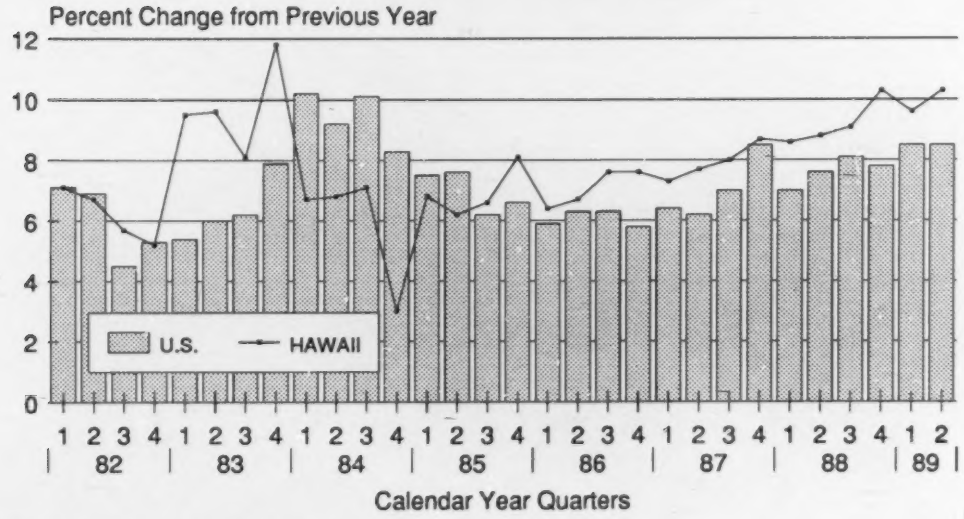
Hawaii's personal income growth continued to outpace the nation in 1989. From the second quarter of 1988 to the second quarter of 1989, the State experienced a 10.3 percent increase while the national average was 8.5 percent.

Non-farm personal income also grew by 10.3 percent, bolstered by the strength of construction industry income, which soared over 30 percent. The Commerce Department considers non-farm income a better indicator of prosperity because of the often erratic nature of farm income. Hawaii'/s growth ranked fifth highest in the nation following Nevada, Delaware, Florida, and Maine.

While the State's income grew by nearly 10 percent for the first half of 1989 from the same period in the previous year, inflation cut the growth in half in real terms. Consumer prices, measured by the Honolulu Consumer Price Index, increased 5.2 percent for the first 6 months of the year compared with the same period in 1988. Food, housing, and transportation sectors continued to experience moderate rises while the apparel and entertainment components showed almost no change. Prices for the nation grew 5.1 percent during the same period.

Figure 3-1

GROWTH IN PERSONAL INCOME: U.S. AND HAWAII



SOURCE: DBED, Based on data from the Dept of Commerce, Bureau of Economic Analysis

Table 3-1
TOTAL PERSONAL INCOME FOR THE UNITED STATES AND HAWAII: 1980 TO 1989

[Dollar amounts in millions]

Year	Total personal income 1/		Percent change from same period in previous year	
	United States	Hawaii	United States	Hawaii
1980	2,254,076	10,279	11.1	13.8
1981	2,514,231	11,051	11.5	7.5
1982	2,663,432	11,732	5.9	6.2
1983	2,834,385	12,875	6.4	9.7
1984	3,101,163	13,628	9.4	5.8
1985	3,317,545	14,589	7.0	7.1
1986	3,519,211	15,608	6.1	7.0
1987	3,766,075	16,845	7.0	7.9
1988	4,052,992	18,399	7.6	9.2
1986:				
1 Q	3,448,615	15,204	5.9	6.4
2 Q	3,507,102	15,436	6.3	6.7
3 Q	3,533,294	15,744	6.3	7.6
4 Q	3,587,833	16,047	5.8	7.6
1987:				
1 Q	3,669,103	16,313	6.4	7.3
2 Q	3,723,552	16,618	6.2	7.7
3 Q	3,780,493	17,001	7.0	8.0
4 Q	3,891,151	17,450	8.5	8.7
1988:				
1 Q	3,926,738	17,718	7.0	8.6
2 Q	4,005,952	18,081	7.6	8.8
3 Q	4,085,272	18,551	8.1	9.1
4 Q	4,194,006	19,245	7.8	10.3
1989:				
1Q	4,259,170	19,421	8.5	9.6
2 Q	4,347,416	19,936	8.5	10.3

1/ Quarterly income seasonally adjusted at annual rates.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, release dated August and October 1989.

Table 3-2
PERSONAL INCOME BY MAJOR SOURCES: 1987 TO 1989

[In millions of dollars and percent]

Item	1987	1988	1st half 1989	Growth rate from previous period	
				1987-88	1988-89
By type:					
Wage and salary disbursements	10,705	11,752	12,468	9.8	9.1
Other labor income	921	1,026	1,131	7.3	14.1
Proprietors income	1,258	1,350	1,460	7.3	11.8
Farm	103	114	130	10.7	33.3
Nonfarm	1,155	1,236	1,330	7.0	10.1
By industry:					
Farm	262	275	294	5.0	14.0
Nonfarm	12,623	13,853	14,765	9.7	9.6
Private	8,956	9,955	10,689	11.2	11.3
Agriculture, forestry, fishing	68	82	80	20.6	-3.0
Construction	900	1,023	1,281	13.7	31.4
Manufacturing	570	603	627	5.8	4.6
Transp., comm., utilities	1,113	1,195	1,312	7.4	12.0
Wholesale trade	507	552	607	8.9	11.9
Retail trade	1,488	1,661	1,778	11.6	9.6
Finance, insurance, real estate	920	1,011	1,051	9.9	7.0
Services	3,378	3,815	3,955	12.9	9.0
Government and govt. enterprises	3,668	3,898	4,076	6.3	5.6
Federal, civilian	991	1,044	1,092	5.3	5.6
Federal military	1,326	1,352	1,399	2.0	3.2
State and local	1,350	1,501	1,585	11.2	7.7
Derivation of personal income:					
Total earnings	12,885	14,128	15,059	9.6	9.7
Less: Personal contributions for social insurance	794	908	1,000	14.4	12.1
Net earnings	12,090	13,220	14,059	9.3	9.5
Plus: Dividends, interest, and rent	2,461	2,724	3,022	10.7	14.5
Plus: Transfer payments	2,294	2,456	2,598	7.1	7.0
Personal income	16,845	18,399	19,679	9.2	9.9

Source: U.S. Department of Commerce, Bureau of Economic Analysis, release dated August and October 1989.

Table 3-3
TOTAL AND PER CAPITA PERSONAL INCOME FOR THE UNITED STATES AND HAWAII: 1980 TO 1988

Year	Total personal income (millions of dollars)		Per capita personal income (dollars)		Hawaii per capita income as a percentage of U.S.
	United States	Hawaii	United States	Hawaii	
1980	2,254,076	10,279	9,919	10,617	107
1981	2,514,231	11,051	10,949	11,274	103
1982	2,663,432	11,732	11,480	11,760	102
1983	2,834,385	12,875	12,098	12,641	104
1984	3,101,163	13,628	13,114	13,157	100
1985	3,317,545	14,589	13,896	13,892	100
1986	3,519,211	15,608	14,596	14,675	101
1987	3,766,075	16,845	15,472	15,569	101
1988	4,052,992	18,399	16,489	16,753	102
	Percent change from previous year				
1980	11.1	13.8	9.8	11.7	1.7
1981	11.5	7.5	10.4	6.2	-3.8
1982	5.9	6.2	4.8	4.3	-0.5
1983	6.4	9.7	5.4	7.5	2.0
1984	9.4	5.8	8.4	4.1	-4.2
1985	7.0	7.1	6.0	5.6	-0.1
1986	6.1	7.0	5.0	5.6	0.6
1987	7.0	7.9	6.0	6.1	0.1
1988	7.6	9.2	6.6	7.6	1.0

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Electronic Data Distribution System, release August 1989.

Table 3-4
TOTAL AND PER CAPITA DISPOSABLE PERSONAL INCOME FOR THE UNITED STATES AND HAWAII: 1980 TO 1988

Year	Disposable personal income (millions of dollars)		Per capita disposable income (dollars)		Hawaii per capita income as a percentage of U.S.
	United States	Hawaii	United States	Hawaii	
1980	1,914,331	8,776	8,424	9,065	108
1981	2,121,830	9,418	9,240	9,608	104
1982	2,255,123	10,213	9,721	10,237	105
1983	2,424,880	11,100	10,350	10,898	105
1984	2,662,051	11,886	11,257	11,476	101
1985	2,832,081	12,606	11,863	12,004	102
1986	3,007,489	13,528	12,474	12,718	102
1987	3,195,698	14,393	13,128	13,303	101
1988	3,467,583	15,786	14,107	14,374	102
	Percent change from previous year				
1980	11.0	13.8	9.7	11.7	1.8
1981	10.8	7.3	9.7	6.0	-3.4
1982	6.3	8.4	5.2	6.5	1.3
1983	7.5	8.7	6.5	6.5	0.0
1984	9.8	7.1	8.8	5.3	-3.2
1985	6.4	6.1	5.4	4.6	-0.7
1986	6.2	7.3	5.2	5.9	0.8
1987	6.3	6.4	5.2	4.6	-1.4
1988	8.5	9.7	7.5	8.1	0.6

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Electronic Data Distribution System release, August 1989.

Table 3-5
CONSUMER PRICE INDEX, ALL URBAN CONSUMERS (CPI-U) FOR SELECTED ITEMS FOR HONOLULU: 1980 TO 1989

[1982-84 = 100]

Period	All items	Food & beverage	Housing 1/	Apparel and upkeep	Transportation	Medical care	Entertainment	Other
1980	83.0	84.2	83.2	89.8	86.6	73.1	78.2	73.3
1981	91.7	92.6	92.3	94.5	95.7	81.8	87.2	81.5
1982	97.2	96.9	98.0	98.4	99.0	91.6	95.7	92.0
1983	99.3	99.5	98.9	101.4	98.2	101.1	100.0	101.4
1984	103.5	103.6	103.1	100.2	102.9	107.3	104.3	106.6
1985	106.8	107.8	106.0	99.6	104.9	113.2	111.9	112.5
1986.....	109.4	110.0	108.4	99.8	105.2	122.3	113.2	119.6
1987	114.9	114.1	115.0	102.5	109.7	127.9	118.6	129.7
1988.....	121.7	120.3	123.0	106.8	116.1	132.5	122.9	137.1
1988:								
1st half...	120.1	118.9	121.1	105.7	114.2	130.3	123.1	135.0
2nd half.	123.4	121.7	124.9	108.0	118.0	134.7	122.8	139.3
1989:								
1st half...	126.4	125.6	128.1	106.1	121.8	136.0	124.0	142.7
% increase:								
1980-81	10.5	10.0	10.9	5.2	10.5	11.9	11.5	11.2
1981-82	6.0	4.6	6.2	4.1	3.4	12.0	9.7	12.9
1982-83	2.2	2.7	0.9	3.0	-0.8	10.4	4.5	10.2
1983-84	4.2	4.1	4.2	-1.2	4.8	6.1	4.3	5.1
1984-85	3.2	4.1	2.8	-0.6	1.9	5.5	7.3	5.5
1985-86	2.4	2.0	2.3	0.2	0.3	8.0	1.2	6.3
1986-87	5.0	3.7	6.1	2.7	4.3	4.6	4.8	8.4
1987-88.....	5.9	5.4	7.0	4.2	5.8	3.6	3.6	5.7
1st half...	6.0	4.9	6.8	4.7	6.4	3.0	5.8	6.3
2nd half.	5.9	5.8	7.2	3.7	5.3	4.3	1.6	5.2
1988-89:								
1st half...	5.2	5.6	5.8	0.4	6.7	4.4	0.7	5.7

1/ Change in calculation in 1983--housing costs measured in rental equivalence (what owners would have to pay if they rented their homes).

Source: U.S. Department of Labor, Bureau of Labor Statistics.

4. EMPLOYMENT

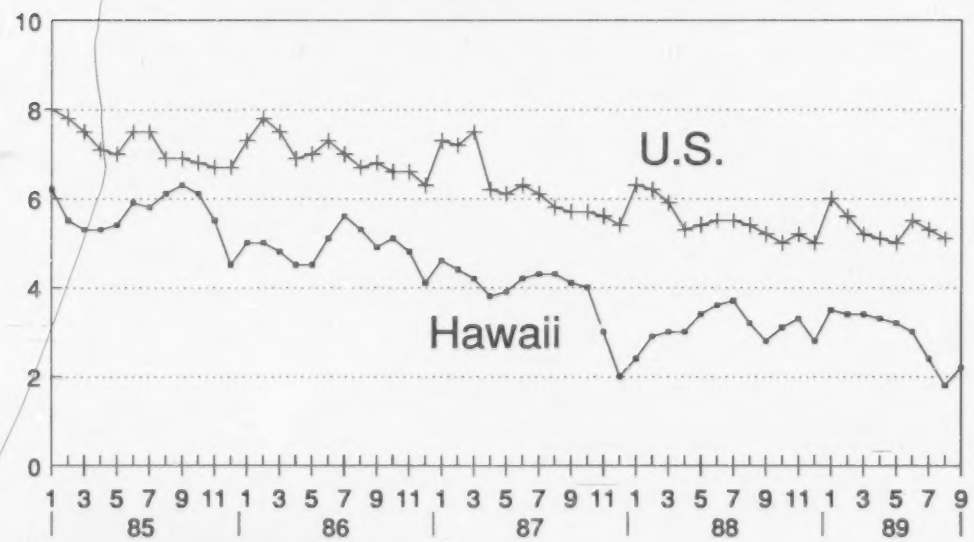
Since June, Hawaii has had the lowest unemployment rate in the nation. The jobless rate dropped to a record low of 1.8 percent in August, and averaged 2.9 percent for the first 9 months of the year. Oahu continues to have the lowest rate in the State, and averaged 2.6 percent for the year, followed by Maui County (3.1 percent) Kauai (3.3 percent), and Hawaii County (4.8 percent).

According to figures from the Department of Labor and Industrial Relations, only 15,200 persons out of a civilian labor force of 521,900 were unemployed. An estimated 6,650 more persons were employed for the January to September period compared to the same period a year ago, a 1.3 percent increase.

Job counts continued to expand but at a slower pace than the previous two years. Non-agricultural wage and salary jobs rose 3.4 percent for the first 9 months of 1989 due to hefty jumps in the construction and service sectors.

The State Labor Department participates with other states in national surveys to estimate unemployment and jobs. Unemployment and labor force are determined through a household survey while job totals are estimated by a separate survey of businesses. The two surveys often give conflicting data on growth. Recently, the U.S. Department of Labor determined that the discrepancies are due to the increasing number of multiple job holders. According to Labor Statistics Commissioner, Janet Norwood, "with the demand for labor strengthening considerably in recent years, increasing numbers of workers have taken on second jobs." A recent survey indicated that 8 percent of employed persons in Hawaii have two or more jobs.

Figure 4-1
CIVILIAN UNEMPLOYMENT RATES,
U.S. and HAWAII: 1985 to 1989



Source: Based on data from Dept. of Labor and Industrial Relations

Table 4-1
CIVILIAN LABOR FORCE AND EMPLOYMENT, BY COUNTY: 1980 TO 1989

[Number of persons]

Subject and year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
Civilian labor force:					
1980	439,000	338,350	44,550	19,550	37,550
1981	451,000	345,700	46,550	20,100	39,800
1982	461,000	350,100	48,300	20,850	42,900
1983	472,000	357,100	48,400	21,650	44,850
1984	472,000	357,100	49,750	21,300	44,950
1985	479,000	359,600	50,700	22,050	46,950
1986	492,000	368,700	51,350	23,400	48,600
1987	513,000	382,300	53,700	25,000	52,000
1988	516,000	382,600	54,700	26,200	52,550
1989 (Jan-Sept)	521,900	384,600	57,450	26,900	52,950
1988: 1 Q	516,500	383,950	53,350	25,950	53,250
2 Q	516,200	383,750	53,700	26,100	52,650
3 Q	515,650	381,400	55,150	26,450	52,600
4 Q	515,700	381,200	56,500	26,350	51,650
1989: 1 Q	514,700	379,400	56,550	26,700	52,100
2 Q	521,100	384,250	57,250	26,800	52,850
3 Q	530,200	390,300	58,600	27,400	53,950
Civilian employment:					
1980	418,000	322,800	40,850	18,700	35,650
1981	427,000	328,500	42,150	18,900	37,450
1982	430,000	328,600	42,700	19,150	39,600
1983	442,000	338,950	44,050	20,000	41,450
1984	445,000	337,950	44,900	19,800	42,250
1985	452,000	348,050	46,150	20,550	44,150
1986	468,000	352,850	47,500	22,000	46,050
1987	493,000	368,700	50,750	23,850	49,650
1988	500,000	372,000	51,950	25,250	50,800
1989 (Jan-Sept)	506,700	374,650	54,700	26,000	51,350
1988: 1 Q	502,200	374,300	51,250	25,100	51,600
2 Q	498,950	372,300	50,750	25,000	50,850
3 Q	498,950	370,550	52,150	25,400	50,850
4 Q	499,900	370,900	53,700	25,400	49,900
1989: 1 Q	497,100	368,000	53,500	25,400	50,150
2 Q	504,600	373,500	54,200	25,900	51,050
3 Q	518,800	382,650	56,600	26,750	52,750

Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-2
CIVILIAN UNEMPLOYED AND UNEMPLOYMENT RATE, BY COUNTY: 1980 TO 1989

Subject and year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
Civilian unemployed (persons):					
1980	21,000	15,550	2,700	850	1,900
1981	24,000	17,150	3,300	1,150	2,350
1982	31,000	21,500	4,500	1,700	3,300
1983	30,000	20,600	4,300	1,650	3,400
1984	27,000	19,100	3,750	1,500	2,700
1985	27,000	18,450	4,250	1,500	2,800
1986	24,000	16,200	3,850	1,400	2,550
1987	20,000	13,600	2,950	1,150	2,300
1988	16,000	10,600	2,700	950	1,750
1989 (Jan-Sept)	15,200	9,900	2,750	900	1,650
1988: 1 Q	14,250	9,650	2,100	800	1,700
2 Q	17,250	11,450	2,950	1,100	1,800
3 Q	16,650	10,850	3,000	1,050	1,750
4 Q	15,800	10,300	2,800	900	1,750
1989: 1 Q	17,650	11,450	3,050	1,250	1,950
2 Q	16,500	10,750	3,050	900	1,800
3 Q	11,400	7,600	2,000	650	1,150
Unemployment rate (percent):					
1980	4.9	4.6	6.2	4.2	5.1
1981	5.4	5.0	7.3	5.8	5.9
1982	6.7	6.1	9.6	8.1	7.7
1983	6.5	5.8	8.9	7.7	7.6
1984	5.6	5.4	7.6	7.0	6.0
1985	5.6	5.1	8.5	6.7	5.9
1986	4.8	4.4	7.5	5.9	5.3
1987	3.8	3.5	5.5	4.6	4.5
1988	3.2	2.8	4.9	3.7	3.3
1989 (Jan-Sept)	2.9	2.6	4.8	3.3	3.1
1988: 1 Q	2.8	2.5	4.0	3.2	3.1
2 Q	3.3	3.0	5.5	4.1	3.4
3 Q	3.2	2.9	5.4	3.9	3.3
4 Q	3.1	2.7	4.9	3.5	3.4
1989: 1 Q	3.4	3.0	5.6	4.3	3.7
2 Q	3.2	2.8	5.4	3.4	3.4
3 Q	2.2	1.9	3.4	2.3	2.2

Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-3
TOTAL JOBS: 1980 TO 1989

Year	Total jobs 1/	Nonagriculture			Agriculture			Labor disputes
		Total	Wage & salary	Self-employed	Total	Wage & salary	Self-employed	
1980	448,150	432,400	404,100	28,300	15,400	10,800	4,600	500
1981	449,900	433,950	404,800	29,150	15,850	11,500	4,350	50
1982	446,050	430,700	399,400	31,300	15,250	11,300	4,000	100
1983	453,750	438,500	406,200	32,300	15,100	11,200	3,900	150
1984	461,000	446,100	412,650	33,450	14,450	10,800	3,650	450
1985	473,150	459,150	425,750	33,400	13,900	10,400	3,500	100
1986	486,850	473,300	438,550	34,750	13,350	10,150	3,200	200
1987 2/	504,950	490,700	459,950	30,700	14,220	10,550	3,700	50
1988	523,500	509,800	477,100	32,750	13,550	10,000	3,600	100
1989 (Jan-Sept)	536,150	522,850	490,400	32,450	13,300	9,850	3,450	-
1988: 1 Q	513,450	500,200	469,700	30,550	13,200	9,750	3,450	50
2 Q	524,700	511,500	477,100	34,400	13,150	9,700	3,450	50
3 Q	524,700	510,450	476,550	33,900	14,150	10,500	3,650	100
4 Q	531,000	517,100	484,950	32,150	13,750	9,950	3,750	150
1989: 1 Q	530,400	518,000	487,200	30,800	12,400	9,200	3,200	-
2 Q	538,650	525,000	492,050	32,950	13,650	10,100	3,600	-
3 Q	539,350	525,450	491,850	33,600	13,900	10,300	3,600	-
	Percent change from the same period in previous year							
1980	3.2	3.4	2.6	16.2	1.1	0.5	2.2	-28.6
1981	0.3	0.4	0.2	3.0	2.9	8.4	-5.4	-90.0
1982	-0.9	-0.7	-1.3	7.4	-3.8	-2.2	-9.2	100.0
1983	1.7	1.8	1.7	3.2	-1.3	-0.9	-1.3	50.0
1984	1.6	1.7	1.6	3.6	-4.0	-3.6	-6.4	200.0
1985	2.6	2.9	3.2	-0.2	-3.8	-3.5	-4.4	-77.8
1986	2.9	3.1	3.0	4.0	-4.0	-2.4	-8.6	85.7
1987	(NC)	(NC)	4.9	(NC)	6.5	3.9	15.3	-75.0
1988	3.7	3.9	3.7	6.7	-4.7	-5.3	-2.7	69.2
1989 (Jan-Sept)	2.9	3.0	3.4	-1.5	-1.4	-1.3	-1.9	-100.0
1988: 1 Q	4.4	4.6	3.9	16.2	-1.2	-2.7	3.0	0.0
2 Q	4.1	4.4	3.9	11.7	-7.0	-7.3	-5.5	0.0
3 Q	3.3	3.6	4.0	-0.6	-8.1	-7.1	-11.0	75.0
4 Q	2.9	3.0	3.1	1.5	-1.7	-3.9	4.1	200.0
1989: 1 Q	3.3	3.6	3.7	0.8	-6.0	-5.7	-7.7	-
2 Q	2.7	2.6	3.1	-4.2	3.8	3.8	3.9	-
3 Q	2.8	2.9	3.2	-0.9	-1.9	-1.9	-1.8	-

NC Not comparable.

1/ Total of wage and salary jobs and self-employed in agricultural and nonagricultural industries plus those jobs involved in labor disputes.

2/ Revision in methodology affecting non-agricultural self-employed from 1987. Data and subtotals not comparable to previous years.

Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-4
NUMBER OF JOBS, BY INDUSTRY: 1987 TO 1989

Series	1987	1988	Jan-Sept 1989(p)	Percent change from previous year		
				1987	1988	1989
Total jobs 1/	504,950	523,500	536,150	(NC)	3.7	2.9
Non-agricultural wage and salary jobs	459,950	477,100	490,400	4.9	3.7	3.4
Construction	21,200	23,050	26,350	13.8	8.8	16.0
Manufacturing	21,900	22,300	22,100	-0.6	1.8	-0.7
Durable goods	3,950	4,250	4,300	4.9	8.0	1.0
Nondurable goods	17,950	18,050	17,800	-1.8	0.6	-1.3
Food processing	9,950	10,300	10,100	-1.9	3.5	-1.3
Sugar processing	3,050	2,950	2,850	-8.0	-3.5	-4.9
Pineapple processing	2,050	2,050	1,800	3.6	0.2	-15.7
Other food processing	4,800	5,300	5,500	-0.1	9.9	6.7
Transportation, commun., utilities	36,850	38,000	39,600	7.7	3.2	4.6
Trade	123,750	127,600	129,400	4.9	3.1	1.8
Wholesale	20,400	20,550	20,950	4.2	0.8	2.3
Retail	103,400	107,050	108,450	5.0	3.6	1.7
Finance, insurance, real estate	33,700	34,750	35,650	1.7	3.1	2.7
Services	126,500	132,250	137,000	6.6	4.5	4.3
Hotels	31,250	34,500	37,000	6.8	10.4	9.0
Government	96,050	99,100	100,300	2.3	3.2	1.9
Federal	32,800	33,450	33,300	2.2	2.0	0.0
State	49,900	51,850	52,850	2.6	3.9	3.2
Local	13,400	13,850	14,150	2.1	3.3	1.9
Agriculture (wage & salary)	10,550	10,000	9,850	3.9	-5.3	-1.3
Sugar	3,800	3,700	3,350	-4.7	-3.0	-10.7
Pineapple	1,900	1,750	1,850	-6.9	-8.8	4.7
Diversified agriculture	4,800	4,550	4,650	17.7	-5.3	4.1
Nonagric. self-employed 2/	30,700	32,750	32,450	(NC)	6.6	-1.5
Agricultural self-employed 2/	3,700	3,600	3,450	15.3	-2.7	-1.9
Labor disputes	50	100	-	-75.0	69.2	-100

p Preliminary.

NC Not comparable. Revision in methodology affecting non-agricultural self-employed from 1987. Data and subtotals not comparable to previous years.

1/ Total of nonagricultural and agricultural wage and salary, self-employed, and jobs involved in labor disputes.

2/ Self-employed includes unpaid family workers and domestics.

Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-5
NON-AGRICULTURAL WAGE AND SALARY JOBS, BY COUNTY: 1980 TO 1989

Year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
1980	404,100	333,050	28,450	15,150	27,500
1981	404,800	332,300	28,850	15,200	28,450
1982	399,400	325,700	28,700	15,150	29,900
1983	406,200	330,100	29,350	15,700	31,050
1984	412,650	334,400	30,400	15,700	32,150
1985	425,750	342,300	32,250	16,700	34,550
1986	438,550	351,450	33,150	17,900	36,050
1987	459,950	366,550	35,300	19,300	38,850
1988	477,100	377,850	37,200	21,150	40,900
1989 (Jan-Sept)(p)	490,400	386,250	40,100	22,150	41,900
1988: 1 Q	469,700	372,450	35,850	20,600	40,800
2 Q	477,100	378,600	36,500	20,950	41,050
3 Q	476,550	377,000	37,300	21,300	40,900
4 Q	484,950	383,350	39,150	21,650	40,750
1989: 1 Q	487,200	383,900	39,750	21,950	41,600
2 Q	492,050	388,000	39,900	22,150	41,950
3 Q	491,850	386,900	40,550	22,300	42,100
	Percent change from same period in previous year				
1980	2.6	2.2	2.9	6.1	4.3
1981	0.2	-0.2	1.4	0.6	3.5
1982	-1.3	-2.0	-0.5	-0.6	5.0
1983	1.7	1.4	2.3	3.9	4.0
1984	1.6	1.3	3.6	0.1	3.5
1985	3.2	2.4	6.0	6.1	7.4
1986	3.0	2.7	2.9	7.2	4.4
1987	4.9	4.3	6.4	7.9	7.8
1988	3.7	3.1	5.5	9.6	5.2
1989 (Jan-Sept)(p)	3.4	2.7	9.7	5.6	2.4
1988: 1 Q	3.9	3.3	3.7	10.8	7.1
2 Q	3.9	3.3	3.8	10.5	6.8
3 Q	4.0	3.4	5.0	10.2	5.1
4 Q	3.1	2.4	9.3	7.0	1.9
1989 : 1 Q	3.7	3.1	10.9	6.7	2.0
2 Q	3.1	2.5	9.4	5.7	2.2
3 Q	3.2	2.6	8.7	4.7	2.9

p Preliminary.
Source: Hawaii State Department of Labor and Industrial Relations.

5. BUSINESS ACTIVITY

The value of business activity subject to state tax continued to experience double-digit increases in 1989. Major sectors such as retailing, services, and construction exceeded the previous year's growth while hotel rentals showed only a 2.4 percent rise despite the jump in visitor arrivals.

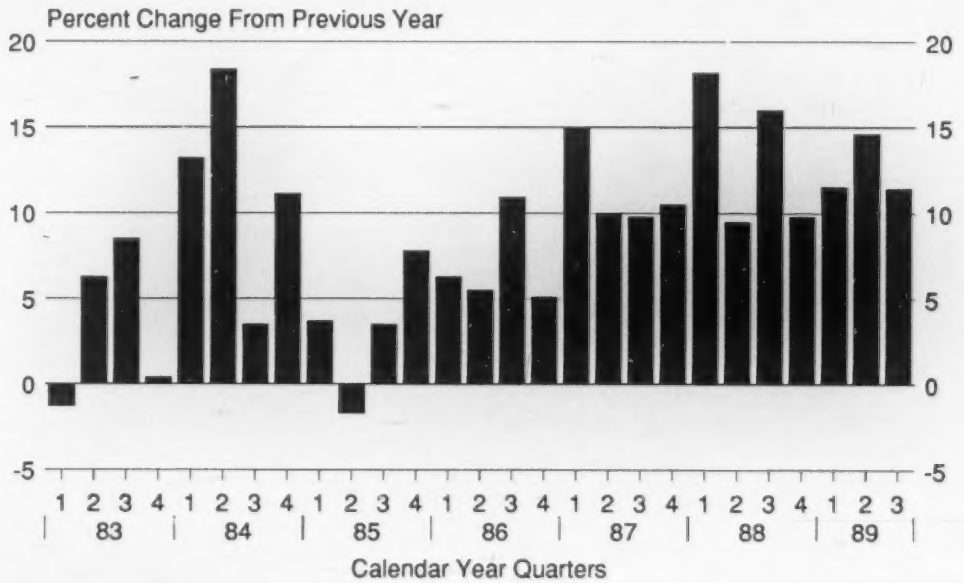
Reports on the 1987 Census of Retail Trade, Wholesale Trade, and Service Industries were recently released by the Bureau of the Census.

The three reports are part of the seven-component Economic Censuses which are conducted every five years, and cover only establishments with paid workers. A separate nonemployer report covering establishments with no paid employees ("mom and pop" stores) will be issued at a later date.

Tables 5-4 to 5-6 give summaries of establishments and sales by geographic areas. The reports also provide more detail on types of businesses and other information such as number of employees and payroll.

Figure 5-1

GROWTH IN TAXABLE BUSINESS TRANSACTIONS



SOURCE: Based on data from Dept of Taxation. Data for 1989 3rd quarter exclude September data.

Table 5-1
VALUE OF BUSINESS TRANSACTIONS SUBJECT TO STATE EXCISE AND USE TAX: 1982 TO 1989

[Millions of dollars]

Year	Total taxable transactions	Selected industry transactions				
		Retailing	Services	Hotel rental	Diversified agriculture	Manufacturing 1/
1982	20,722.1	7,043.6	1,976.2	875.5	176.8	544.3
1983	21,416.8	7,458.8	2,128.5	858.2	221.6	502.3
1984	23,879.9	8,182.7	2,396.1	1,008.6	257.6	530.1
1985	24,630.3	8,605.2	2,529.7	1,153.4	251.6	538.3
1986	26,335.2	9,206.7	2,786.1	1,227.2	258.8	565.4
1987	29,232.3	10,010.4	3,057.4	1,434.8	264.1	588.3
1987 2/	28,072.4	9,356.7	2,856.2	1,346.5	264.1	588.3
1988	31,833.9	10,501.7	3,337.6	1,429.3	308.2	606.7
1 Q	8,349.5	2,802.6	842.5	421.5	85.2	156.0
2 Q	7,771.2	2,594.7	838.7	332.2	76.3	160.7
3 Q	8,134.6	2,694.6	825.3	358.8	71.3	145.7
4 Q	7,578.6	2,409.8	831.0	316.7	75.4	144.2
1989 (Jan-Aug)	24,208.3	7,959.5	2,511.6	1,024.0	214.5	462.5
1 Q	9,311.7	3,098.4	957.3	418.1	89.5	183.1
2 Q	8,909.5	2,851.3	934.3	357.0	79.6	161.1
July-Aug	5,987.1	2,009.8	620.0	248.9	45.4	118.3
	Percent change from same period in previous year					
1982	3.4	5.3	10.3	15.3	2.0	-11.6
1983	-0.9	5.9	7.7	-2.0	25.3	-7.7
1984	11.5	9.7	12.6	17.5	16.2	5.5
1985	3.1	5.2	5.6	14.4	-2.4	1.5
1986	6.9	7.0	10.1	6.4	2.9	5.0
1987	11.0	8.7	9.7	16.9	2.1	4.0
1988	13.4	12.2	16.9	6.1	16.7	3.1
1 Q	18.2	18.6	17.2	23.7	28.1	2.0
2 Q	9.5	10.9	14.0	-12.5	3.5	6.1
3 Q	16.0	13.1	14.4	12.3	15.9	-1.0
4 Q	9.8	6.1	22.0	3.1	20.9	5.5
1989 (Jan-Aug)	12.6	10.5	12.9	2.4	3.5	11.1
1 Q	11.5	10.6	13.6	-0.8	5.0	17.4
2 Q	14.6	9.9	11.4	7.5	4.3	0.2
July-Aug	11.4	11.4	14.1	1.2	-0.7	18.8

Note: This series derived by lagging reported excise tax base data one month to adjust for reporting delay.

1/ Excludes sugar processing and pineapple canning. Manufacturing goods shipped out of State have been exempted from the general excise tax by Act 239, SLH 1987, effective January 1, 1989.

2/ The Department of Taxation has revised the method of reporting the taxable base by industry. Before 1988, nonspecified industry transactions were allocated to five major tax activities--retailing, services, contracting, hotel rentals, and all other rentals. Data for 1987 show results of both methods. Percentages are based on comparable series.

Source: Hawaii State Department of Taxation.

Table 5-2
COLLECTIONS OF KEY STATE TAXES AND GENERAL FUND TAX REVENUES: 1982 TO 1989

[Thousands of dollars]

Year	General excise and use tax 1/	Net individual income tax 2/	Net corporate income tax 3/	Tax revenues distributed to State General Fund 4/
1982	574,590	296,757	34,785	1,011,465
1983	615,536	358,072	27,960	1,109,876
1984	669,805	413,885	39,681	1,240,352
1985	707,381	446,358	44,075	1,325,791
1986	777,961	490,185	46,216	1,486,484
1987	869,039	574,729	67,272	1,731,226
1988	965,953	680,789	63,093	1,949,174
1989 (Jan-Sept)	814,129	592,785	66,006	1,588,340
1 Q	270,801	205,047	23,553	554,240
2 Q	270,683	211,019	24,710	593,091
3 Q 4/	272,645	176,719	17,743	441,009
	Percent change from same period in previous year			
1982	-0.1	-15.1	-20.2	-5.5
1983	7.1	20.7	-19.6	9.7
1984	8.8	15.6	41.9	11.8
1985	5.6	7.8	11.1	6.9
1986	10.0	9.8	4.9	12.1
1987	11.7	17.2	45.6	16.5
1988	11.2	18.5	-6.2	12.6
1989 (Jan-Sept)	12.5	19.0	19.6	8.5
1 Q	12.6	28.7	29.9	18.9
2 Q	11.9	24.1	18.5	15.3
3 Q 4/	13.0	4.6	9.3	-8.8

Note: This series represents data as reported by the Department of Taxation, without adjustment.

1/ Manufactured goods shipped out of State have been exempted from the general excise tax by Act 239, SLH 1987, effective January 1, 1988.

2/ Declaration of estimated taxes, plus payments with returns, plus withholding tax on wages, less refunds.

3/ Declaration of estimated taxes, plus payments with returns, less refunds.

4/ Excludes non-tax sources. The State General Fund for the 3rd quarter declined due to a new $90 million allocation to the State Education Special Fund. Act 368 adopted by the 1989 State Legislature requires allocation of $90 million annually. Without this special allocation, general fund would have increased by 9.8 percent.

Source: Hawaii State Department of Taxation.

Table 5-3
DEFENSE EXPENDITURES BY SERVICE: 1980 TO 1989

[Millions of dollars]

Year or quarter	Total	Navy and Marine 1/	Army	Air Force	Coast Guard
1980	1,317.4	711.3	441.8	141.7	22.7
1981	1,449.3	770.4	493.8	158.3	26.7
1982	1,693.4	878.2	611.5	173.7	29.9
1983	1,848.2	935.9	702.7	182.6	27.0
1984	1,867.2	948.2	685.2	207.6	26.2
1985	1,965.4	955.3	780.4	201.0	28.7
1986	1,784.9	892.0	658.6	202.4	31.9
1987	1,857.0	871.5	744.3	212.4	28.8
1988	1,892.4	780.3	857.2	224.6	30.3
1988: 1 Q	468.1	194.3	209.0	58.0	6.8
2 Q	469.2	194.7	209.4	56.7	8.5
3 Q	491.0	203.0	223.0	57.5	7.5
4 Q	464.0	188.3	215.8	52.4	7.5
1989: 1 Q	493.5	207.8	223.0	55.1	7.6
2 Q	485.2	193.1	226.9	57.4	7.7
	Percent change from same period in previous year				
1980	7.8	11.0	2.8	9.6	2.7
1981	10.0	8.3	11.8	11.7	17.6
1982	16.8	14.0	23.8	9.7	12.0
1983	9.1	6.6	14.9	5.1	-9.7
1984	1.0	1.3	-2.5	13.7	-2.7
1985	5.3	0.7	13.9	-3.1	9.6
1986	-9.2	-6.6	-15.6	0.7	11.1
1987	4.0	-2.3	13.0	4.9	-10.0
1988	1.9	-10.5	15.2	5.7	5.6
1988: 1 Q	5.1	-9.4	21.4	16.5	-12.8
2 Q	3.4	-15.6	31.2	2.0	7.7
3 Q	-0.9	-10.4	5.5	12.3	21.0
4 Q	0.0	-5.8	7.2	-5.9	8.9
1989: 1 Q	5.4	7.0	6.7	-4.9	10.8
2 Q	3.4	-0.8	8.4	1.2	-8.4

Note: Data include all appropriated expenditures for military and civilian payrolls, services, and supplies. Excludes dependent allotments, retired military pay, and non-appropriated funds for exchanges, clubs, special services, and construction.

NA Not available.

1/ Since December 1985, Navy data partly estimated due to change in reporting method and may not reflect all local purchases.

Source: Quarterly reports from armed forces, compiled by DBED.

Table 5-4.-- RETAIL TRADE FOR COUNTIES AND URBAN PLACES: 1987

[Includes only establishments with payroll. Excludes establishments operated by the armed forces]

Geographic area	Number of establishments	Sales ($1,000)	Annual payroll ($1,000)	Paid employees for pay period including March 12
State total	7,195	8,084,416	1,016,127	101,969
Hawaii County	842	721,798	87,929	9,456
Hilo	378	403,435	49,429	5,077
Kailua	219	186,592	23,352	2,553
Balance of county	245	131,771	15,148	1,826
Honolulu County	4,918	6,079,556	752,824	74,485
Ahuimanu	5	(D)	(D)	(D)
Aiea	246	420,642	47,567	4,593
Ewa	2	(D)	(D)	(D)
Ewa Beach	16	9,687	1,199	158
Hauula	10	10,815	1,202	123
Heeia	3	3,288	786	78
Hickam Housing	-	-	-	-
Honolulu	3,644	4,451,451	559,406	54,846
Iroquois Point	-	-	-	-
Kahaluu	1	(D)	(D)	(D)
Kailua	173	175,779	22,961	2,383
Kaneohe	188	292,847	31,582	3,036
Laie	7	7,307	972	156
Maile	5	2,651	475	57
Makaha	8	6,780	639	98
Makakilo City	3	(D	(D)	(D)
Maunawili	8	3,199	282	30
Mililani Town	35	68,832	7,728	588
Mokapu	1	(D)	(D)	(D)
Nanakuli	9	9,914	788	90
Pearl City	101	137,280	17,042	1,806
Schofield Barracks	3	432	85	9
Wahiawa	102	71,320	10,233	1,177
Waialua	12	5,564	653	72
Waianae	39	49,897	5,855	611
Waimanalo	25	15,660	2,417	268
Waimanalo Beach	-	-	-	-
Waipahu	154	208,664	22,902	2,014
Waipio Acres	-	-	-	
Balance of county	118	99,948	15,677	2,117

Continued on next page.

Table 5-4.-- RETAIL TRADE FOR COUNTIES AND URBAN PLACES: 1987--Con.

Geographic area	Number of establishments	Sales ($1,000)	Annual payroll ($1,000)	Paid employees for pay period including March 12
Kauai County	464	362,491	47,121	5,173
Hanamaulu	7	2,932	640	108
Kalaheo	8	3,815	591	68
Kapaa	108	72,905	8,965	993
Kekaha	4	(D)	(D)	(D)
Lihue	158	155,160	18,116	1,773
Balance of county	179	(D)	(D)	(D)
Maui County	971	920,571	128,253	12,855
Island of Lanai	10	5,260	727	69
Island of Molokai	29	21,436	2,359	247
Kahului	191	294,026	36,963	3,471
Kihei	105	92,034	12,382	1,588
Lahaina	361	277,365	44,865	4,579
Makawao	9	6,046	540	68
Pukalani	14	19,169	2,100	229
Wailuku	132	115,312	14,036	1,207
Balance of county	120	89,923	14,281	1,397

(D) Withheld to avoid disclosing data for individual companies.
Source: U.S. Bureau of the Census, *1987 Census of Retail Trade, Hawaii*, RC87-A-12 (May 1989), table 5.

Table 5-5.-- WHOLESALE TRADE, FOR COUNTIES AND SPECIFIED PLACES: 1987

Geographic area	All wholesalers		Merchant wholesalers	
	Number of establish-ments	Sales ($1,000)	Number of establish-ments	Sales ($1,000)
State total	1,998	5,362,490	1,718	3,762,672
Hawaii County	191	347,224	171	269,888
Hilo	116	275,949	102	204,498
Kailua	36	33,323	32	(D)
Honolulu County	1,577	4,501,802	1,340	3,127,947
Aiea	67	172,664	61	144,516
Ewa Beach	13	27,206	12	(D)
Honolulu	1,293	3,816,710	1,095	2,621,357
Kailua	31	21,399	27	16,189
Kaneohe	24	14,315	21	12,606
Pearl City	40	117,864	33	46,125
Waipahu	49	135,071	41	103,325
Kauai County	73	124,882	64	96,221
Lihue	43	85,106	38	(D)
Maui County	157	388,582	143	268,616
Island of Lanai	1	(D)	1	(D)
Island of Molokai	5	3,047	4	(D)
Kahului	73	260,544	67	164,568
Wailuku	42	77,007	39	(D)

(D) Withheld to avoid disclosing data for individual companies.

Source: U.S. Bureau of the Census, *1987 Census of Wholesale Trade, Hawaii*, WC87-A-12 (April 1989), table 5.

Table 5-6.-- SERVICE ESTABLISHMENTS WITH PAYROLL AND SUBJECT TO FEDERAL INCOME TAX, FOR COUNTIES AND SELECTED URBAN PLACES: 1987

Geographic area	Number of establishments		Receipts ($1,000)	
	All services	Hotels 1/	All services	Hotels 1/
State total	7,458	237	4,455,953	1,562,043
Hawaii County	736	35	382,211	191,918
Hilo	388	9	131,071	12,539
Kailua	170	13	85,259	46,113
Honolulu County	5,704	130	3,234,314	868,888
Aiea	188	3	70,268	2,575
Ewa Beach	18	-	3,838	-
Honolulu	4,529	118	2,848,869	828,367
Kailua	242	-	57,539	-
Kaneohe	143	1	36,243	(D)
Mililani Town	39	-	12,131	-
Pearl City	144	-	45,720	-
Wahiawa	96	1	23,833	(D)
Waianae	24	1	10,155	(D)
Waimanalo	13	-	10,649	-
Waipahu	116	-	26,747	-
Kauai County	293	27	186,636	98,474
Kapaa	56	9	28,560	20,513
Lihue	129	8	69,391	10,311
Maui County	725	45	652,792	402,763
Island of Lanai	3	-	(D)	-
Island of Molokai	20	2	17,641	(D)
Kahului	171	3	110,323	(D)
Kihei	66	7	16,496	8,064
Lahaina	116	17	140,715	102,114
Pukalani	18	-	2,674	-
Wailuku	237	1	67,673	(D)

D Withheld to avoid disclosing data for individual companies.
1/ Including motels and other lodging places (SIC 70), but excluding condominium apartments in transient use.
Source: U.S. Bureau of the Census, *1987 Census of Service Industries, Hawaii*, SC87-A-12 (July 1989), table 5.

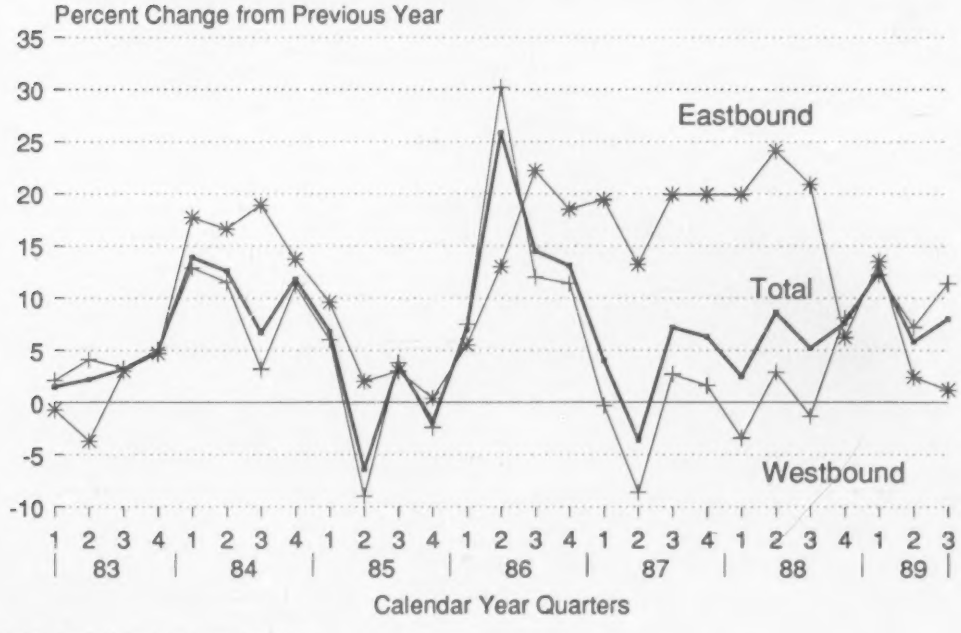
6. THE VISITOR INDUSTRY

Over 5 million visitors arrived in the State in the first 9 months of the year, 8.7 percent more than the same period last year. Eastbound visitors, mainly from Japan, increased a modest 5.3 percent compared to the double-digit growth rates experienced during the last three years. However, the slowdown in the eastbound market has been more than offset by the resurgence of westbound visitors from the U.S. mainland which jumped over 10 percent.

Although Oahu continues to draw the most tourist, the Neighbor Islands have experienced substantial gains in visitor traffic this year. Growth in westbound visitors to Hawaii County soared nearly 30 percent while Maui and Kauai County showed increases of 10.0 and 17.7 percent. The phenomenal growth of tourism on the Big Island is also reflected in the occupancy rates which increased by 5 percentage points this year. Average daily hotel room rates also climbed 37 percent due to the opening of upscale resort hotels.

Figure 6-1

GROWTH IN VISITOR ARRIVALS



SOURCE: Based on data from the HVB.

Table 6-1
VISITOR ARRIVALS AND AVERAGE DAILY VISITOR CENSUS: 1980 TO 1989

Year 1/	Visitors staying overnight or longer			Average daily visitor census	
	Total	Westbound 2/	Eastbound 3/	Westbound 2/	All
1980	3,934,504	3,046,132	888,372	86,788	96,497
1981	3,934,623	2,974,791	959,832	85,449	95,968
1982	4,242,925	3,278,525	964,400	94,740	105,310
1983	4,368,105	3,396,115	971,990	97,390	108,040
1984	4,855,580	3,721,380	1,134,200	106,260	118,660
1985	4,884,110	3,708,610	1,175,500	103,820	116,700
1986	5,606,980	4,256,390	1,350,590	118,110	132,800
1987	5,799,830	4,204,010	1,595,820	116,780	134,100
1988	6,142,420	4,264,730	1,877,690	115,760	138,910
1989 (Jan-Sept)(p)	5,011,740	3,490,470	1,521,270	127,750	152,918
1988: 1 Q	1,484,910	1,047,440	437,470	120,950	143,320
2 Q	1,488,200	1,028,780	459,420	109,150	131,870
3 Q	1,635,570	1,088,110	547,460	113,300	140,650
4 Q	1,533,740	1,100,400	433,340	119,560	140,530
1989: 1 Q (p)	1,672,190	1,175,500	496,690	136,870	161,700
2 Q (p)	1,573,890	1,103,320	470,570	118,800	139,480
3 Q (p)	1,765,660	1,211,650	554,010	127,630	154,730
	Percent change from corresponding period in previous year				
1980	-0.7	-3.0	8.2	-3.2	-2.2
1981	0.0	-2.3	8.0	-1.5	-0.5
1982	7.8	10.2	0.5	10.9	9.7
1983	3.0	3.6	0.8	2.8	2.6
1984	11.2	9.6	16.7	9.1	9.8
1985	0.6	-0.3	3.6	-2.3	-1.7
1986	14.8	14.8	14.9	13.9	13.8
1987	3.4	-1.2	18.2	-1.1	1.0
1988	5.9	1.4	17.7	-0.9	3.6
1989 (Jan-Sept)(p)	8.7	10.3	5.3	11.6	10.6
1988: 1 Q	2.5	-3.4	19.9	-5.4	-0.5
2 Q	8.6	2.9	24.1	1.6	6.6
3 Q	5.2	-1.3	20.9	-4.2	1.9
4 Q	7.6	8.1	6.2	5.2	6.9
1989: 1 Q (p)	12.6	12.2	13.5	13.1	12.8
2 Q (p)	5.8	7.2	2.4	8.8	5.8
3 Q (p)	8.0	11.4	1.2	12.7	10.0

p Preliminary.
1/ Beginning in 1984, sample size reduced from 20 to 10 percent and numbers rounded to the nearest 10.
2/ Arriving from the Mainland United States or Canada.
3/ Arriving from the Orient and Pacific areas.
Source: Hawaii Visitors Bureau.

Table 6-2
WESTBOUND VISITORS, BY COUNTY: 1981 TO 1989

Year 1/	City and County of Honolulu	Hawaii County	Maui County	Kauai County
1981	2,398,477	672,683	1,389,892	757,811
1982	2,589,190	678,170	1,550,080	733,295
1983	2,591,575	712,380	1,644,605	691,940
1984	2,901,320	760,940	1,854,690	814,590
1985	2,828,640	697,380	1,831,110	832,580
1986	3,146,030	786,930	2,003,870	1,014,650
1987	3,078,500	782,550	1,908,780	1,032,840
1988	3,013,860	782,360	1,884,050	1,043,710
1989 (Jan-Sept)(p)	2,369,860	726,510	1,558,690	918,050
1988: 1 Q	717,820	200,080	474,630	255,980
2 Q	733,650	175,400	464,130	254,290
3 Q	797,210	186,080	477,790	269,420
4 Q	765,180	220,800	467,500	264,020
1989: 1 Q (p)	773,360	242,790	525,680	287,250
2 Q (p)	746,540	219,490	505,020	282,450
3 Q (p)	849,960	264,230	527,990	348,350
	Percent change from corresponding period in previous year			
1982	8.0	0.8	11.5	-3.2
1983	0.1	5.0	6.1	-5.6
1984	12.0	6.8	12.8	17.7
1985	-2.5	-8.4	-1.3	2.2
1986	11.2	12.8	9.4	21.9
1987	-2.1	-0.6	-4.7	1.8
1988	-2.1	-0.0	-1.3	1.1
1989 (Jan-Sept)(p)	5.4	29.4	10.0	17.7
1988: 1 Q	-7.5	-12.2	-4.8	-2.6
2 Q	-0.7	-3.2	3.0	2.9
3 Q	-3.5	-1.1	-4.4	-3.3
4 Q	3.8	19.3	1.7	8.1
1989: 1 Q (p)	7.7	21.3	10.8	12.2
2 Q (p)	1.8	25.1	8.8	11.1
3 Q (p)	6.6	42.0	10.5	29.3

p Preliminary.
1/ Beginning in 1984, sample size changed from 20 to 10 percent
Source: Hawaii Visitors Bureau.

Table 6-3
AVERAGE DAILY HOTEL ROOM RATES, BY ISLANDS: 1980 TO 1989

[Dollars]

Year	State	Oahu	Hawaii	Maui	Kauai	Molokai
1980	47.37	42.70	46.40	61.34	55.16	(NA)
1981	49.87	43.16	47.16	73.44	56.06	(NA)
1982	51.78	44.80	47.37	75.02	58.48	(NA)
1983	55.58	47.62	50.49	81.60	59.75	(NA)
1984	59.25	49.45	57.17	88.89	65.05	(NA)
1985	65.66	57.00	65.35	96.75	69.51	(NA)
1986	72.67	61.99	73.88	115.33	71.56	56.73
1987	80.09	69.04	82.21	127.05	81.65	64.26
1988	87.94	75.66	87.15	134.26	94.04	59.06
1989 (Jan-Sept)	96.26	84.38	121.29	135.59	94.10	65.90
	Percent change from previous year					
1980	6.7	3.1	12.0	7.3	15.5	(NA)
1981	5.2	1.1	1.6	19.7	1.6	(NA)
1982	3.8	3.8	0.4	2.2	4.3	(NA)
1983	7.4	6.3	6.6	8.8	2.2	(NA)
1984	6.6	3.8	13.2	8.9	8.9	(NA)
1985	10.8	15.3	14.3	8.8	6.9	(NA)
1986	11.5	9.0	15.1	17.5	8.4	(NA)
1987	10.2	11.4	11.3	10.2	14.1	13.3
1988	9.9	9.7	6.0	5.7	15.2	-8.1
1989 (Jan-Sept)	9.9	12.1	37.2	0.5	5.2	7.3

NA Not available.
Source: Pannell Kerr Forster & Company, *Trends in the Hotel Industry, Hawaii.*

Table 6-4
HOTEL OCCUPANCY RATES BY AREA: 1986 TO 1989

[Percent; survey excludes some large hotel chains]

Date	State	Oahu	Hawaii Island	Maui Island	Kauai Island	Molokai
1986	81.2	85.2	62.2	82.7	76.7	50.3
1987	81.1	86.8	60.8	76.2	74.2	45.4
1988	78.5	85.4	56.4	73.2	67.5	45.3
(Jan-September)	79.4	86.5	56.1	74.6	67.4	44.2
1989 (Jan-September)	80.1	87.7	61.3	70.6	72.4	46.1
1988:						
January	76.7	84.9	58.1	67.2	58.4	50.1
February	86.5	92.0	70.8	81.9	74.1	58.7
March	82.4	87.6	59.3	82.0	72.0	51.3
April	74.0	78.2	54.5	76.7	63.7	38.6
May	73.3	79.5	46.2	70.7	67.5	40.5
June	77.7	86.9	48.2	70.5	62.8	34.4
July	81.2	90.2	55.0	72.2	66.9	40.1
August	86.7	93.8	64.2	82.0	74.4	43.8
September	76.1	85.2	47.5	65.8	67.3	40.4
October	80.4	85.7	59.6	76.3	76.1	50.2
November	74.5	80.5	55.8	69.4	64.7	52.5
December	70.5	78.3	55.2	61.8	53.1	41.0
1989:						
January	82.8	92.6	61.2	68.8	66.4	56.1
February	90.0	95.2	72.2	85.1	83.8	61.8
March	85.0	91.2	64.0	79.8	75.3	51.3
April	74.1	77.6	64.5	72.1	69.1	44.5
May	70.9	76.9	55.3	64.0	65.1	42.8
June	76.8	87.6	52.5	60.4	67.8	34.5
July	80.9	88.8	63.8	69.5	73.8	38.4
August	86.6	94.2	67.6	74.2	84.1	44.8
September	75.5	85.1	51.0	60.6	67.4	42.3

Source: Pannell Kerr Forster & Company, *Trends in the Hotel Industry, Hawaii.*

Table 6-5
VISITOR ACCOMMODATIONS IN HAWAII, BY TYPE: 1977 TO 1989

[As of February]

Year and island	Properties			Units		
	Total	Hotels 1/	Condo-miniums 2/	Total	Hotels 1/	Condo-miniums 2/
1977	335	(NA)	(NA)	44,986	39,901	5,085
1978	353	(NA)	(NA)	47,070	40,001	7,069
1979	381	(NA)	(NA)	49,832	41,299	8,533
1980	387	(NA)	(NA)	54,246	42,609	11,637
1981	412	214	198	56,769	42,575	14,194
1982	417	208	209	57,968	43,568	14,400
1983	426	218	208	58,765	45,352	13,413
1984	443	209	234	62,448	44,846	17,602
1985	481	207	274	65,919	44,115	21,804
1986	523	201	322	66,308	43,309	22,999
1987	510	196	314	65,318	43,422	21,896
1988	481	203	278	69,012	47,892	21,120
1989	455	194	261	68,189	48,970	19,219
ISLANDS: 1989						
Oahu	159	103	56	36,739	30,808	5,931
Waikiki 3/	131	83	48	32,743	27,549	5,194
Rest of Oahu	28	20	8	3,996	3,259	737
Other islands	296	91	205	31,450	18,162	13,288
Hawaii	72	30	42	8,171	6,004	2,167
Kauai	73	27	46	7,251	4,319	2,932
Maui	143	31	112	15,444	7,503	7,941
Molokai	7	2	5	574	326	248
Lanai	1	1	-	10	10	-

NA Not available.
1/ Hotels, apartment hotels, motels, and cottages.
2/ Condominium accommodations in rental pools for transient use.
3/ Includes Diamond Head and Kahala but not areas ewa and mauka (west and north) of the Ala Wai Canal.
Source: Hawaii Visitors Bureau, *Visitor Plant Inventory*, 1976 to 1989.

7. CONSTRUCTION

The construction industry continues to be a major force in the expansion of the Hawaiian economy. The increase in the value of construction completed for the first 8 months of year matched the 26 percent growth of the previous year.

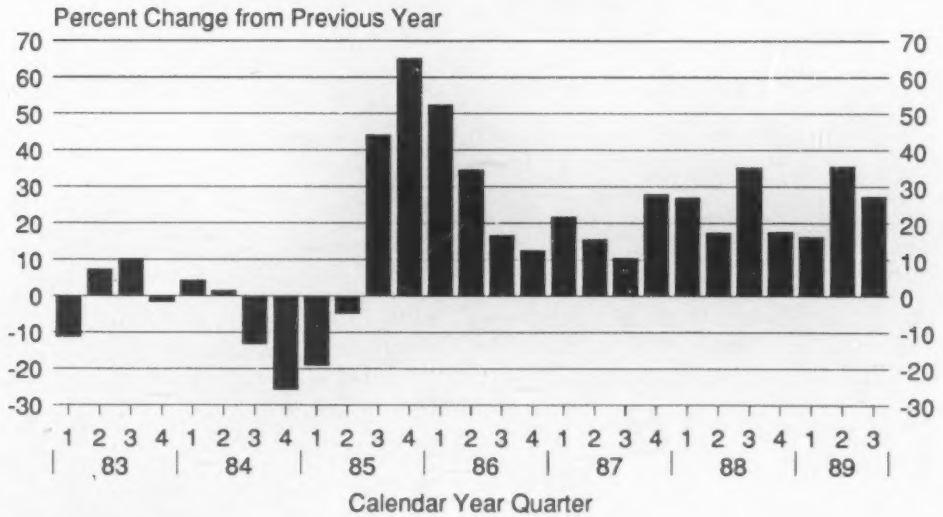
Private building authorizations, an indicator of future construction, surpassed the previous year's growth with all sectors--residential, commercial/industrial, and additions and alterations showing strong gains. Hawaii County authorizations nearly doubled due to the Mauna Lani Resort and Waikoloa developments.

Government contracts awarded, however, showed decreases during the second and third quarters with an overall increase of 15.6 percent for the nine-month period. Federal and State projects decreased while county government contracts jumped 146 percent.

Construction costs continue to increase modestly in the 4 to 6 percent range, similar to consumer prices.

Figure 7-1

GROWTH IN CONSTRUCTION EXPENDITURES



SOURCE: Based on data from the Dept. of Taxation. Data for 1989 3rd quarter based on July and August information.

Table 7-1
ESTIMATED VALUE OF COMPLETED CONSTRUCTION, NEW PRIVATE BUILDING AUTHORIZATIONS, AND GOVERNMENT CONTRACTS AWARDED: 1985 TO 1989

[Millions of dollars]

Year	Value of construction completed 1/	Private building authorizations				Government contracts awarded
		Total private authorization	Residential	Commercial and industrial 2/	Additions and alterations	
1985	1,429.6	889.0	500.1	208.8	180.1	248.5
1986	1,810.0	1,024.1	455.5	266.3	302.3	425.1
1987	2,145.5	1,161.9	507.0	344.4	310.5	372.2
1988	2,529.0	1,540.3	686.0	538.9	315.4	654.3
1989 (Jan-Sept) 3/	2,015.8	1,374.4	679.2	390.5	304.8	510.5
1988: 1 Q	590.6	317.4	135.1	112.2	70.1	124.3
2 Q	588.7	357.7	207.7	86.5	63.6	110.4
3 Q	698.1	334.1	183.1	66.4	84.6	207.1
4 Q	651.5	531.1	160.2	273.8	97.2	212.5
1989: 1 Q	687.2	416 .9	169.0	150.9	97.1	249.5
2 Q	798.0	542.1	329.5	131.9	80.6	106.4
3 Q 3/	530.6	415.4	180.7	107.7	127.1	154.6
	Percent change from corresponding period in previous year					
1985	16.5	52.9	52.6	100.8	20.2	-39.6
1986	26.6	15.7	-10.6	32.7	68.7	71.1
1987	18.5	13.5	11.3	29.3	2.7	-12.4
1988	26.0	32.6	35.3	56.5	1.6	75.8
1989 (Jan-Sept) 3/	26.3	45.1	41.7	51.7	44.5	15.6
1988: 1 Q	27.0	27.6	10.1	54.3	31.3	27.9
2 Q	17.5	10.0	54.2	6.9	-42.0	22.1
3 Q	35.3	24.3	53.9	-1.9	3.3	65.5
4 Q	17.7	66.3	22.7	122.4	48.1	257.1
1989: 1 Q	16.3	31.3	25.1	34.5	38.5	100.7
2 Q	35.6	51.6	58.6	52.5	26.7	-3.6
3 Q 3/	27.3	52.4	32.4	83.6	64.4	-25.4

1/ Value of construction subject to State excise tax, adjusted to reflect reporting delay of about one month.

2/ Includes hotels.

3/ Excludes September data for value of construction completed and 3rd quarter data for Maui County private building authorizations. Percent computations based on comparable periods and coverage.

Source: Hawaii State Department of Taxation; County building departments; Trade Publishing Company, *Building Industry Digest: BID Service Weekly.*

Table 7-2
ESTIMATED VALUE OF PRIVATE BUILDING CONSTRUCTION AUTHORIZATIONS, BY COUNTY: 1980 TO 1989

[Millions of dollars]

Year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
1980	1,219.2	686.3	146.0	133.3	253.7
1981	802.0	454.1	136.5	67.7	143.7
1982	683.1	473.0	75.2	44.2	90.7
1983	685.2	366.8	86.7	140.5	91.3
1984	581.5	378.3	90.3	53.0	59.8
1985	889.0	524.8	121.3	63.9	178.9
1986	1,024.1	545.3	231.5	93.2	154.1
1987	1,161.9	749.5	145.2	103.5	163.8
1988	1,540.3	743.1	175.0	213.7	408.5
1989 (Jan-Sept) 1/	1,374.5	830.2	250.4	135.9	158.0
1988: 1 Q	317.4	154.1	36.8	31.2	95.2
2 Q	357.7	216.6	40.4	35.0	65.6
3 Q	334.1	193.1	53.4	26.1	61.6
4 Q	531.1	179.2	44.5	121.4	186.0
1989: 1 Q	416.9	224.9	104.1	34.2	53.7
2 Q	542.1	331.5	72.9	33.5	104.3
3 Q 1/	415.4	273.8	73.4	68.2	(NA)
	Percent change from corresponding period in previous year				
1980	39.4	36.9	30.1	17.1	72.0
1981	-34.2	-33.8	-6.5	-49.2	-43.4
1982	-14.8	4.2	-44.9	-34.7	-35.0
1983	0.3	-22.4	15.3	217.5	0.6
1984	-15.1	3.1	4.3	-62.3	-34.4
1985	52.9	38.7	34.3	20.5	199.0
1986	15.2	3.9	90.8	45.9	-13.9
1987	13.5	37.5	-37.3	11.0	6.3
1988	32.6	-0.9	20.5	106.5	149.4
1989 (Jan-Sept) 1/	45.1	47.3	91.9	47.2	-1.7
1988: 1 Q	27.6	-1.8	32.9	5.4	174.4
2 Q	10.0	-2.0	16.4	54.2	40.2
3 Q	24.3	26.0	39.4	-18.4	36.6
4 Q	66.3	-17.9	-0.2	532.3	400.0
1989: 1 Q	31.3	45.9	182.9	9.6	-43.6
2 Q	51.6	53.0	80.4	-4.3	59.0
3 Q 1/	52.4	41.8	37.5	161.3	-

NA Not available.

1/ Excludes 3rd quarter data for Maui County private building authorizations. Percent computations based on comparable periods and coverage.

Source: County building departments.

Table 7-3
ESTIMATED VALUE OF GOVERNMENT CONSTRUCTION CONTRACTS AWARDED IN HAWAII, BY AWARDING AGENCY: 1980 TO 1989

[Millions of dollars]

Year	Total	Federal	State	County
1980	230.6	66.5	120.0	44.1
1981	427.5	176.1	180.5	70.9
1982	392.7	139.6	182.0	71.2
1983	277.9	84.7	126.8	66.4
1984	411.8	130.0	196.7	85.1
1985	248.5	74.8	93.8	79.9
1986	425.1	101.9	205.4	117.8
1987	372.2	107.9	174.2	90.1
1988	654.3	170.5	351.5	132.3
1989 (Jan-Sept)	510.5	74.0	275.4	161.1
1988: 1 Q	124.3	36.1	51.7	36.5
2 Q	110.4	12.6	90.4	7.4
3 Q	207.1	29.0	156.6	21.5
4 Q	212.5	92.8	52.8	66.9
1989: 1 Q	249.5	36.2	131.6	81.7
2 Q	106.4	13.4	67.2	25.8
3 Q	154.6	24.4	76.6	53.6
	Percent change from corresponding period in previous year			
1980	-40.7	-37.1	-45.7	-28.8
1981	85.4	164.8	50.5	60.6
1982	-8.1	-20.7	0.8	0.4
1983	-29.3	-39.3	-30.3	-6.7
1984	48.2	53.4	55.1	28.2
1985	-39.6	-42.4	-52.3	-6.2
1986	71.1	36.2	119.1	47.4
1987	-12.4	5.9	-15.2	-49.3
1988	75.8	58.0	101.8	46.8
1989 (Jan-Sept)	15.6	-4.8	-7.8	146.3
1988: 1 Q	27.9	97.3	-0.4	35.2
2 Q	22.1	1.6	129.4	-80.8
3 Q	65.5	-48.9	196.6	37.8
4 Q	257.1	354.9	75.4	651.7
1989: 1 Q	100.7	0.3	154.5	123.8
2 Q	-3.6	6.3	-25.7	248.6
3 Q	-25.4	-15.9	-51.1	149.3

Source: Trade Publishing Co., *Building Industry Digest: BID Service Weekly*, and First Hawaiian Bank, Research Division.

Table 7-4
NUMBER OF SINGLE-FAMILY AND MULTI-FAMILY HOUSING UNITS AUTHORIZED BY COUNTY: 1980 TO 1989

Year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
Single-family and duplex units:					
1980	4,058	1,645	1,204	401	808
1981	2,649	728	1,048	409	464
1982	2,285	725	800	230	530
1983	3,417	1,627	938	291	561
1984	4,442	2,513	928	361	640
1985	4,951	2,436	1,046	453	1,016
1986	4,700	2,173	1,144	438	945
1987	6,066	2,870	1,442	599	1,155
1988	6,191	2,158	1,674	702	1,657
1989 (Jan-Sept) 1/	4,534	1,881	1,528	565	560
1988: 1 Q	1,323	359	352	202	410
2 Q	1,767	722	403	188	454
3 Q	1,987	748	515	174	550
4 Q	1,114	329	404	138	243
1989: 1 Q	1,474	557	483	141	293
2 Q	1,620	670	512	171	267
3 Q 1/	1,440	654	533	253	(NA)
Multi-family units:					
1980	6,603	3,297	727	766	1,813
1981	3,142	1,873	270	64	935
1982	4,594	4,109	245	118	122
1983	1,341	1,220	38	73	10
1984	1,021	829	153	35	4
1985	2,450	1,807	128	84	431
1986	2,479	1,986	21	-	472
1987	1,459	785	138	-	536
1988	2,593	1,168	446	21	958
1989 (Jan-Sept) 1/	2,322	1,458	312	30	522
1988: 1 Q	428	162	222	-	44
2 Q	702	449	-	-	253
3 Q	528	108	224	-	196
4 Q	935	449	-	21	465
1989: 1 Q	309	216	87	6	-
2 Q	1,501	934	21	24	522
3 Q 1/	512	308	204	-	(NA)

NA Not available.
1/ Excludes 3rd quarter data for Maui County.
Source: County building departments.

Table 7-5
HONOLULU CONSTRUCTION COST INDEXES: 1983 TO 1989

[1982=100]

Year	Single-family residence			High-rise building		
	All components	Material prices	Labor 1/	All components	Material prices	Labor 1/
1983	109.5	111.3	107.3	106.9	107.4	106.9
1984	114.3	113.1	115.8	110.9	108.0	114.5
1985	117.4	115.2	120.1	113.5	108.7	118.4
1986	121.5	119.1	124.4	116.8	110.8	122.6
1987	125.7	123.7	128.2	120.7	114.9	125.8
1988	132.8	133.2	132.2	126.1	121.6	130.1
1989 (Jan-Sept)	138.0	137.0	139.4	132.4	126.2	137.7
1988: 1 Q	132.8	134.2	131.0	126.3	124.3	127.9
2 Q	130.8	129.9	132.0	124.3	117.8	129.8
3 Q	132.7	132.6	132.8	125.7	119.7	130.9
4 Q	134.8	136.2	133.0	128.1	124.8	131.0
1989: 1 Q	137.1	136.0	138.6	131.4	125.3	136.5
2 Q	138.6	138.3	139.0	132.8	127.4	137.4
3 Q	138.3	136.6	140.5	132.9	125.8	139.1
	Percent change from corresponding period in previous year					
1983	9.5	11.3	7.3	6.9	7.4	6.9
1984	4.3	1.6	7.9	3.8	0.6	7.1
1985	2.7	1.9	3.7	2.4	0.6	3.4
1986	3.5	3.4	3.6	2.9	1.9	3.5
1987	3.5	3.8	3.0	3.4	3.7	2.7
1988	5.6	7.7	3.2	4.4	5.9	3.4
1989 (Jan-Sept)	4.5	3.5	5.6	5.6	4.7	6.3
1988: 1 Q	7.2	11.2	2.4	5.4	10.1	1.8
2 Q	5.0	6.8	2.9	2.9	2.4	3.2
3 Q	5.1	6.2	3.5	3.7	3.4	4.1
4 Q	5.3	6.7	3.7	5.7	7.8	4.1
1989: 1 Q	3.2	1.3	5.8	4.0	0.8	6.7
2 Q	6.0	6.5	5.3	6.8	8.1	5.9
3 Q	4.2	3.0	5.8	5.7	5.1	6.3

1/ Includes wages and benefits.

Source: First Hawaiian Bank, Research Division.

8. POPULATION DISTRIBUTION IN HAWAII, 1988

The resident population of Hawaii reached 1,098,200 in mid-1988. This total compared to 964,691 on April 1, 1980, and 769,913 in 1970. The 1988 estimate included 56,800 members of the armed forces stationed or homeported in Hawaii, 69,900 military dependents, and 971,500 civilians other than military dependents.

The 1988 de facto population was 1,218,800. This estimate refers to the total number of persons physically present in the State, regardless of their usual place of residence. It includes an average of 141,400 visitors present during the year but excludes 20,800 residents temporarily absent.

Growth in the 99 months since the 1980 census amounted to 13.8 percent for the total resident population, 14.7 percent for the civilian population, 15.2 percent for the resident population exclusive of military personnel and dependents, and 15.8 percent for the de facto population.

Growth rates in Hawaii are considerably higher than for the nation as a whole. Between April 1, 1980 and July 1, 1988, the United States increased 8.5 percent, compared with 13.8 percent for Hawaii. The de facto growth for Hawaii was even higher, 15.8 percent.

Approximately 76.4 percent of the resident population and 74.1 percent of the de facto population in 1988 were in the City and County of Honolulu. Resident totals by counties were as follows: Honolulu, 838,800; Hawaii, 117,500; Maui, 92,900; and Kauai, 49,300. Since 1980, growth in the resident population has amounted to 10.0 percent on Oahu and 28.5 percent on the Neighbor Islands (31.0 percent in Maui County, 27.6 percent on the Big Island, and 26.1 percent in Kauai County). The de facto population has increased 9.8 percent on Oahu and 37.1 percent on the Neighbor Islands since 1980.

Among the 28 districts of the State, 1980-1988 growth rates ranged from -16.0 percent in Kalawao to 99.3 percent in Hanalei. Other rapidly growing areas included Puna (68.6 percent), South Kohala (71.1), and North Kona (56.8). The highest rate estimated for Maui County was in Lahaina District, with 36.4 percent. The most populous district in the State, Honolulu, with a 1988 population of 379,300, increased by only 3.9 percent during the 99-month postcensal period. These geographic variations are charted in figure 8-2.

The de facto population density of the State in 1988 was 189.7 per square mile or 73.2 per square kilometer. By islands, it ranged from zero on Kahoolawe and 2.9 per square mile on Lanai to 1,513.7 on Oahu.

The resident population increased by 133,500 between April 1, 1980 and July 1, 1988. This growth was based on 152,600 births, 45,400 deaths, and a net in-migration of 26,400. Excluding military personnel and dependents, net in-migration was 51,600, or 6,300 per year (compared with an annual average of 10,602 for the preceding decade). Natural increase--the excess of births over deaths--accounted for 59.7 percent of the growth of the non-military population between 1980 and 1988, well above the 43.5 percent recorded for the 1970s. The share attributable to net migration meanwhile declined from 55.6 to 40.3 percent.

Age estimates for 1988 reveal a much older population than that reported by the 1980 census. The median age has risen by 3.6 years, to 31.9, since 1980, and the fastest growing age group has been the 65-and-over category, with an 8.25-year increase of 50.0 percent.

Households in Hawaii as of mid-1988 numbered 353,000, compared with 294,052 on April 1, 1980. Households increased 20.0 percent during the 99-month postcensal period, or noticeably faster than the 13.8 percent increase in resident population. This change reflects a continued decline in average household size, which fell from 3.59 in 1970 to 3.15 in 1980 and 2.99 in 1988.

The foregoing estimates are reported in greater detail in the accompanying tables. Most of the absolute values have been rounded to the nearest 100. Percent changes are based on unrounded data.

These estimates were the work of the U.S. Bureau of the Census and two agencies of the State of Hawaii, the Office of Health Status Monitoring of the Department of Health and the Research and Economic Analysis Division of the Department of Business and Economic Development. The statewide estimates of resident population were the work of the Bureau of the Census; the county breakdowns, of all three agencies, under the Federal-State Cooperative Program for Local Population Estimates. The de facto population estimates were prepared by the two Hawaii State agencies, with the cooperation of the Market Research Department of the Hawaii Visitors Bureau.

The 1980-1988 State figures on resident population are averages based on separate estimates by two methods, the Administrative Records Method (which calculates migration from data on address changes reported by persons paying income taxes) and a composite technique based largely on the Ratio-Correlation Method (utilizing various symptomatic series).

The 1980-1987 county estimates likewise represented the averages of results obtained from two methods, the Administrative Records (AR) Method and Ratio-Correlation Method. The 1987-1988 county changes were based entirely on the AR method. All county estimates were controlled to the latest State estimates for 1980-1988. District-level estimates, based on utility data, were in turn controlled to the county totals.

The 1980-1988 estimates of de facto population were based on the corresponding resident estimates, as adjusted by data on visitors present and residents absent (both calculated as annual averages) supplied by the Hawaii Visitors Bureau. The HVB figures came from its long-established sample survey of passengers entering the State.

Table 8-1
RESIDENT POPULATION, BY MILITARY STATUS: 1980 TO 1988

[Excludes visitors present but includes residents temporarily absent]

Year	Total resident population	Armed forces 1/	Civilian population		
			All civilians	Military dependents 2/	Not military dependents
1980: April 1	964,691	57,056	907,635	64,023	843,612
July 1	968,900	57,900	911,000	64,100	846,900
1981: July 1	980,100	56,600	923,600	64,300	859,200
1982: July 1	997,500	54,900	942,600	66,700	875,900
1983: July 1	1,018,400	55,200	963,200	66,300	897,000
1984: July 1	1,035,700	57,300	978,400	67,100	911,300
1985: July 1	1,049,900	56,400	993,600	64,300	929,300
1986: July 1	1,063,600	58,100	1,005,500	66,200	939,300
1987: July 1	1,082,000	58,100	1,023,800	64,800	959,000
1988: July 1	1,098,200	56,800	1,041,400	69,900	971,500

1/ These figures are the estimates developed by the U.S. Bureau of the Census for use in population estimation. They differ somewhat from corresponding figures from other sources.

2/ Dependents living in Hawaii, regardless of location of family head.

Source: Federal-State Cooperative Program for Local Population Estimates.

Table 8-2
RESIDENT AND DE FACTO POPULATION, BY RESIDENCE STATUS: 1980 TO 1988

Year	Resident population 1/		De facto population 3/		De facto-resident ratio 4/
	Total	Temporarily absent 2/	Total	Visitors present 2/	
1980: April 1	964,691	9,600	1,052,700	97,600	1,091
July 1	968,900	9,600	1,055,800	96,500	1,090
1981: July 1	980,100	11,600	1,064,500	96,000	1,086
1982: July 1	997,500	14,500	1,088,200	105,300	1,091
1983: July 1	1,018,400	11,500	1,115,000	108,000	1,095
1984: July 1	1,035,700	16,100	1,138,300	118,700	1,099
1985: July 1	1,049,900	18,600	1,148,100	116,700	1,093
1986: July 1	1,063,600	17,200	1,179,400	132,900	1,109
1987: July 1	1,082,000	15,700	1,200,500	134,300	1,110
1988: July 1	1,098,200	20,800	1,218,800	141,400	1,110

1/ The resident population is defined as the number of persons whose usual place of residence is in an area, regardless of physical location on the estimate or census date. It includes military personnel stationed or homeported in the area but excludes persons of local origin attending school or in military service outside the area.

2/ Averages for 12-month periods centered on the estimate or census dates.

3/ The de facto population is defined as the number of persons physically present in an area, regardless of military status or usual place of residence; it includes visitors present but excludes residents temporarily absent.

4/ De facto population per 1,000 resident population.

Source: Federal-State Cooperative Program for Local Population Estimates.

Figure 8-1
RESIDENT AND DE FACTO POPULATION: 1988

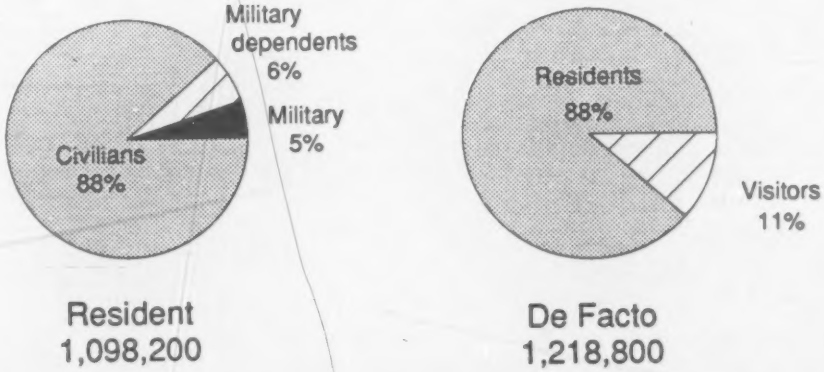


Table 8-3
RESIDENT POPULATION, BY COUNTIES: 1980 TO 1988

[Based on place of usual residence. Includes armed forces stationed or homeported in Hawaii and residents temporarily absent; excludes visitors present]

Date	State total	City & County of Honolulu	Hawaii County	Kauai County	Maui County 1/
1980: April 1	964,691	762,565	92,053	39,082	70,991
July 1	968,900	764,800	93,000	39,400	71,600
1981: July 1	980,100	768,300	97,000	40,600	74,100
1982: July 1	997,500	778,500	100,200	41,900	76,900
1983: July 1	1,018,400	793,000	102,600	43,000	79,800
1984: July 1	1,035,700	801,200	107,000	44,100	83,400
1985: July 1	1,049,900	809,900	109,400	45,300	85,300
1986: July 1	1,063,600	819,100	111,200	46,200	87,000
1987: July 1	1,082,000	829,000	114,800	47,900	90,300
1988: July 1	1,098,200	838,500	117,500	49,300	93,000

1/ Including Kalawao County (Kalaupapa Settlement).
Source: Federal-State Cooperative Program for Local Population Estimates.

Table 8-4
DE FACTO POPULATION, BY COUNTIES: 1980 TO 1988

[Includes all persons physically present in area, regardless of military status or usual place of residence. Includes visitors present but excludes residents temporarily absent, both calculated as averages for 12-month periods centered on estimate date]

Date	State total	City & County of Honolulu	Hawaii County	Kauai County	Maui County 1/
1980: April 1	1,052,700	822,000	98,700	46,100	85,900
July 1	1,055,800	823,600	99,500	46,400	86,400
1981: July 1	1,064,500	825,400	102,600	47,500	89,000
1982: July 1	1,088,200	840,000	105,700	48,500	94,000
1983: July 1	1,115,000	850,300	110,400	50,600	103,700
1984: July 1	1,138,300	855,700	113,100	54,600	114,900
1985: July 1	1,148,100	860,400	116,000	56,200	115,500
1986: July 1	1,179,400	879,700	119,500	60,400	119,700
1987: July 1	1,200,500	891,500	123,400	62,800	122,800
1988: July 1	1,218,800	902,600	126,300	64,900	125,000

1/ Including Kalawao County (Kalaupapa Settlement).
Source: Federal-State Cooperative Program for Local Population Estimates.

Table 8-5
ESTIMATED POPULATION, RESIDENT AND DE FACTO, AND DE FACTO DENSITY, BY COUNTIES AND ISLANDS: JULY 1, 1988

County and Island	Resident population 1/		De facto population 2/		
	Number, 1988	Percent change, 1980-88	Number, 1988	Percent change, 1980-88	Per square mile, 1988
State total	1,098,200	13.8	1,218,800	15.8	189.7
County:					
Hawaii	117,500	27.6	126,300	28.0	31.3
Maui	92,900	31.0	124,900	45.7	107.5
Kalawao	121	-16.0	121	-16.0	9.1
Honolulu	838,500	10.0	902,600	9.8	1,513.7
Kauai	49,300	26.1	64,900	40.8	104.07
Island:					
Hawaii	117,500	27.6	126,300	28.0	31.3
Maui	84,100	33.8	115,400	50.2	158.4
Kahoolawe	-	...	-	...	-
Lanai	2,200	2.9	2,200	1.7	15.7
Molokai	6,700	11.5	7,400	7.4	28.4
Oahu 3/	838,500	10.0	902,600	9.8	1,513.7
Kauai	49,100	26.3	64,700	41.0	117.8
Niihau	207	-8.4	207	-8.4	2.9

1/ For definition, see headnote to table 8-3
2/ For definition, see headnote to table 8-4.
3/ Includes the Northwestern Hawaiian Islands, except Midway.
Source: Federal-State Cooperative Program for Local Population Estimates.

Table 8-6
RESIDENT POPULATION OF COUNTIES AND DISTRICTS: 1970, 1980, AND 1988

County and district	April 1, 1970	April 1, 1980	July 1, 1988	Percent change 1970 to 1980	Percent change 1980 to 1988
State total	769,913	964,691	1,098,200	25.3	13.8
Hawaii County	63,468	92,053	117,500	45.0	27.6
Puna	5,154	11,751	19,800	128.0	68.6
South Hilo	33,915	42,278	45,400	24.7	7.3
North Hilo	1,881	1,679	1,400	-10.7	-13.9
Hamakua	4,648	5,128	5,300	10.3	3.9
North Kohala	3,326	3,249	3,700	-2.3	14.4
South Kohala	2,310	4,607	7,900	99.4	71.1
North Kona	4,832	13,748	21,600	184.5	56.8
South Kona	4,004	5,914	7,500	47.7	26.7
Ka'u	3,398	3,699	4,900	8.9	31.1
Maui County 1/	46,156	70,991	93,000	53.8	31.0
Hana	969	1,423	1,800	46.9	26.8
Makawao	9,979	19,005	25,400	90.4	33.7
Wailuku	22,219	32,111	42,800	44.5	33.4
Lahaina	5,524	10,284	14,000	86.2	36.4
Lanai	2,204	2,119	2,200	-3.9	2.9
Molokai	5,089	5,905	6,600	16.0	12.1
Kalawao	172	144	121	-16.3	-16.0
City & Co. of Honolulu	630,528	762,565	838,500	20.9	10.0
Honolulu	324,871	365,048	379,300	12.4	3.9
Koolaupoko	92,219	109,373	117,900	18.6	7.8
Koolauloa	10,562	14,195	16,700	34.9	17.5
Waialua	9,171	9,849	11,400	7.4	16.2
Wahiawa	37,329	41,562	45,400	11.3	9.2
Waianae	24,077	31,487	35,300	30.8	12.1
Ewa	132,299	191,051	232,500	44.4	21.7
Kauai County	29,761	39,082	49,300	31.3	26.1
Hanalei	1,182	2,668	5,300	125.7	99.3
Kawaihau	7,393	10,497	13,700	42.0	30.8
Lihue	6,766	8,590	10,000	27.0	16.8
Koloa	6,851	8,734	11,600	27.5	33.2
Waimea	7,569	8,593	8,600	13.5	-0.2

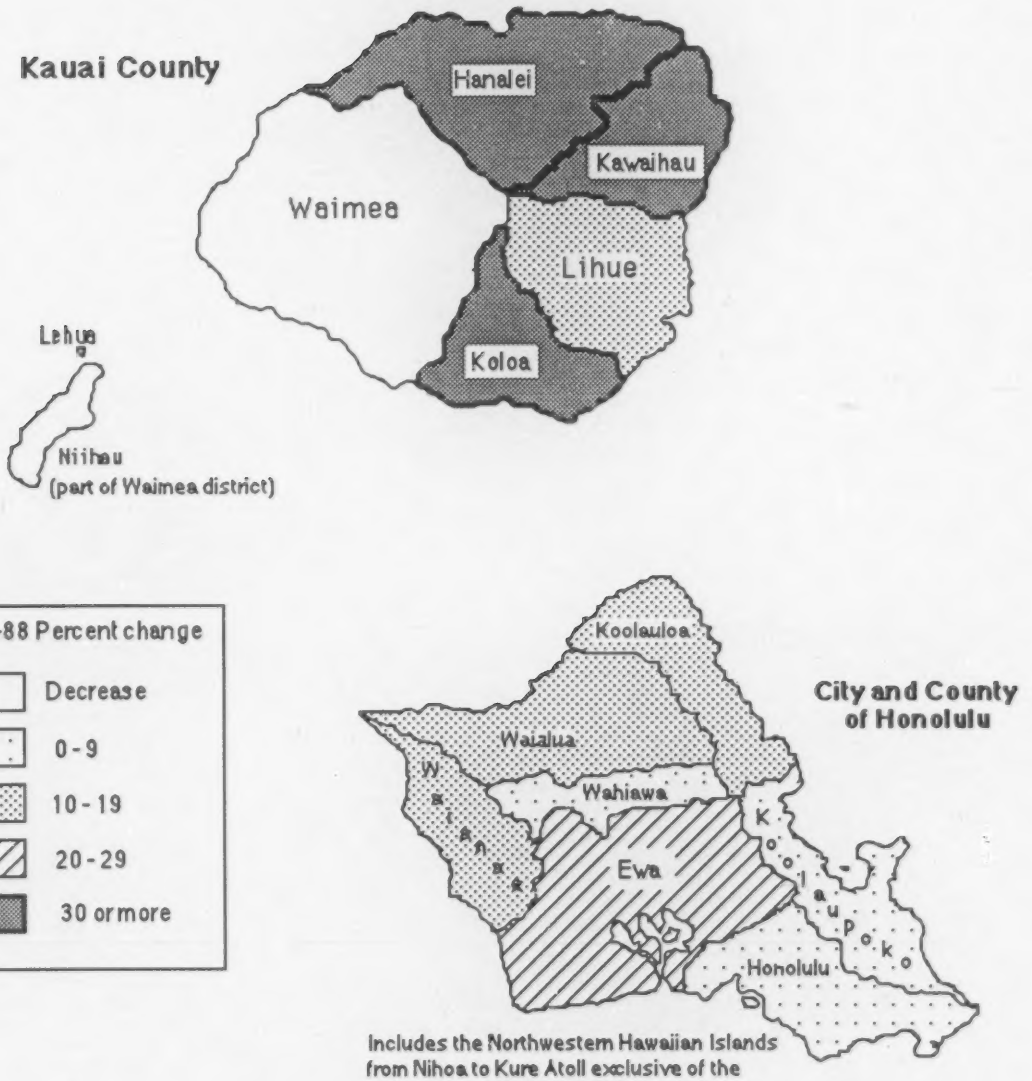
1/ Including Kalawao County.

Source: U.S. Bureau of the Census, *1980 Census of Population, Number of Inhabitants, Hawaii*, PC80-1-A13 (October 1981), table 4; Hawaii State Department of Business and Economic Development, unpublished estimates.

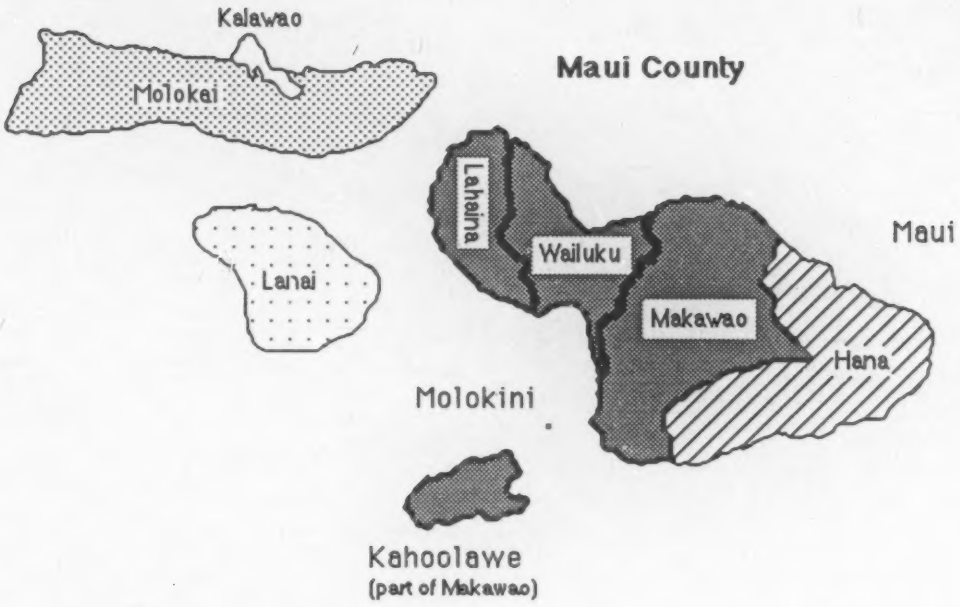
Figure 8-2

GROWTH OF RESIDENT POPULATION BY DISTRICTS: 1980 to 1988

(in percent)



Includes the Northwestern Hawaiian Islands from Nihoa to Kure Atoll exclusive of the Midway Islands, a U. S. possession.


Kalawao
Molokai
Maui County
Lahaina
Wailuku
Maui
Lanai
Makawao
Hana
Molokini
Kahoolawe
(part of Makawao)

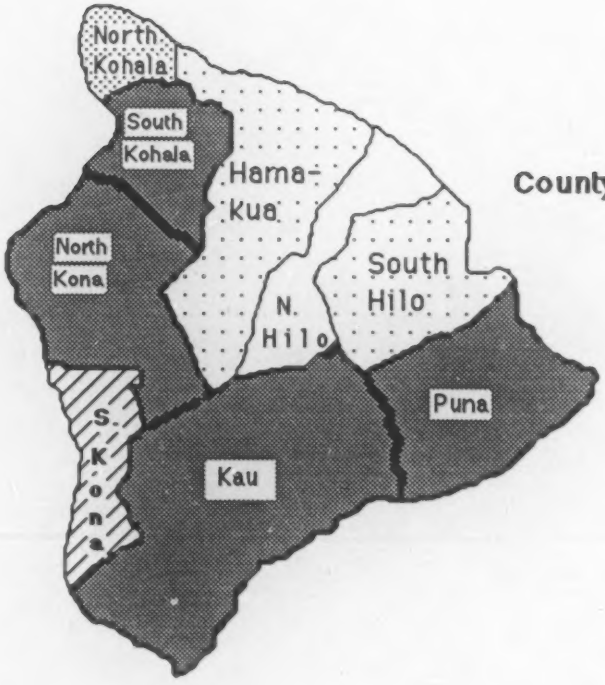

North Kohala
South Kohala
Hama-kua
County of Hawaii
North Kona
South Hilo
N. Hilo
Puna
S. Kona
Kau

Table 8-7
COMPONENTS OF CHANGE IN THE RESIDENT POPULATION, BY MILITARY STATUS AND COUNTIES: 1980 TO 1988

[April 1, 1980 to June 30, 1988. For 1970-1980, see *Data Book 1985*, table 45]

Military status and county	Net change	Vital events			Net migration 1/
		Natural increase	Live births	Deaths	
THE STATE					
State total	+133,500	107,100	152,600	45,400	+26,400
Armed forces	-200	-600	-	600	+300
Military dependents	+5,900	31,400	32,100	700	-25,500
Other residents	+127,900	76,300	120,500	44,100	+51.600
Annual average	+15,500	9,300	14,600	5,400	+6,300
Percent distribution	100.0	59.7	...	...	40.3
COUNTIES					
City & Co. of Honolulu	+75,900	83,700	117,300	33,700	-7,800
Armed forces	-100	-600	-	600	+500
Military dependents	+5,900	31,400	32,100	700	-25,400
Other residents	+70,000	52,800	85,200	32,400	+17,200
Other counties	+57,600	23,500	35,200	11,800	+34,200
Hawaii	+25,400	10,200	15,800	5,500	+15,200
Kauai	+10,200	4,400	6,700	2,300	+5,800
Maui and Kalawao	+22,000	8,800	12,800	3,900	+13,200

1/ Includes net changes in military status.

Source: Federal-State Cooperative Program for Local Population Estimates.

Table 8-8.-- RESIDENT POPULATION, BY AGE AND SEX: 1980 AND 1988

[In thousands. Includes armed forces stationed or homeported in Hawaii. The 1988 estimates are provisional]

Age group	April 1, 1980 (census)			July 1, 1988 (estimates)		
	Both sexes	Male	Female	Both sexes	Male	Female
Total	965	495	470	1,098	559	539
Under 5 years	78	40	38	89	46	43
5 to 14 years	148	76	72	154	79	75
15 to 24 years	192	105	87	172	92	80
25 to 34 years	180	92	88	197	102	95
35 to 44 years	111	56	55	170	85	85
45 to 54 years	94	45	50	102	49	53
55 to 64 years	85	42	43	101	51	50
65 to 74 years	49	26	23	72	35	37
75 to 84 years	21	10	11	32	17	16
85 years and over	6	2	4	9	4	6
5 to 17 years	198	102	96	198	102	96
18 to 24 years	142	79	63	128	70	58
25 to 44 years	291	148	143	367	187	180
45 to 64 years	180	87	92	203	99	103
16 years and over	723	370	352	842	427	415
18 years and over	689	353	336	812	412	400
21 years and over	631	320	310	759	383	376
65 years and over	76	38	38	114	55	59
Median age	28.3	27.6	29.1	31.9	31.2	32.7

Source: U.S. Bureau of the Census, "State Population and Household Estimates, With Age, Sex, and Components of Change: 1981-88," *Current Population Reports, Population Estimates and Projections*, Series P-25, No. 1044 (August 1989), p. 37.

Table 8-9.-- HOUSEHOLDS AND HOUSEHOLD SIZE: 1950 TO 1988

[As of April 1, 1950-1980, and July 1 thereafter. For annual estimates, 1971-1979, see *Data Book 1985*, table 585]

Year	Households	Average size	Year	Households	Average size
1950	111,858	4.14	1983	316,000	(NA)
1960	153,064	3.87	1984	323,000	(NA)
1970	203,088	3.59	1985	330,000	(NA)
1980	294,052	3.15	1986	336,000	(NA)
1981	304,000	(NA)	1987	344,000	(NA)
1982	310,000	(NA)	1988	353,000	2.99

NA Not available.

Source: Robert C. Schmitt, *Historical Statistics of Hawaii* (University Press of Hawaii, 1977), p. 33. U.S. Bureau of the Census, *Census of Population: 1930, General Population Characteristics, Hawaii*, PC80-1-B13 (1982), table 14; "State Population and Household Estimates, With Age, Sex, and Components of Change: 1981-88" *Current Population Reports, Population Estimates and Projections*, Series P-25, No. 1044 (August 1989), pp. 64-65.

Table 9-1
RECENT ECONOMIC AND DEMOGRAPHIC TRENDS: STATE OF HAWAII

Series 1/	Unit	Period 2/	Number	Percent change from same period in previous year
Resident population (p)	Persons	7/1/88	1,098,200	1.5
City and County of Honolulu	Persons	7/1/88	838,500	1.1
Hawaii County	Persons	7/1/88	117,500	2.4
Kauai Island	Persons	7/1/88	49,100	2.9
Maui Island	Persons	7/1/88	84,200	3.3
Molokai	Persons	7/1/88	6,600	0.7
Lanai	Persons	7/1/88	2,200	0.3
Niihau	Persons	7/1/88	207	2.5
Personal income	$ Million	2nd Q	19,936	10.3
Consumer price index (CPI-U):				
Honolulu	(1982-84 = 100)	Jan-June	126.4	5.2
U.S.	(1982-84 = 100)	Jan-June	122.7	5.1
Construction:				
Private permits 3/	$ Million	Jan-Sept	1,374.4	45.1
Residential permits	$ Million	Jan-Sept	679.2	41.7
New single-family units	Number	Jan-Sept	4,534	0.2
New multi-family units	Number	Jan-Sept	2,322	58.8
Commercial & industrial	$ Miilion	Jan-Sept	390.5	51.7
Additions & alterations	$ Million	Jan-Sept	304.8	44.5
Government contracts awarded	$ Million	Jan-Sept	510.5	15.6
Construction cost indexes (Hon):				
Single-family units	(1982 = 100)	Jan-Sept	138.0	4.5
High-rise buildings	(1982 = 100)	Jan-Sept	132.4	5.6
Employment (p):				
Civilian labor force	Persons	Jan-Sept	521,900	1.1
Civilian employment	Persons	Jan-Sept	506,700	1.3
Civilian unemployment	Persons	Jan-Sept	15,200	-5.4
Unemployment rate	Percent	Jan-Sept	2.9	-
Total jobs	Number	Jan-Sept	536,150	2.9
Visitor industry:				
Total visitors (p)	Number	Jan-Sept	5,011,740	8.7
Westbound	Number	Jan-Sept	3,490,470	10.3
Eastbound	Number	Jan-Sept	1,521,270	5.3
Hotel/condo units for visitor use	Number	February	68,189	-1.2
Defense expenditures	$ Million	2nd Q	485.2	3.4
Sugar production (p)	$ Million	1988	324.0	-3.5
Pineapple sales (p)	$ Million	1988	247.0	-1.9

p Provisional estimates.
1/ Statewide data, unless indicated otherwise.
2/ Data for 1989, unless otherwise noted.
3/ Excludes 3rd quarter for Maui County; percentage based on comparable coverage.

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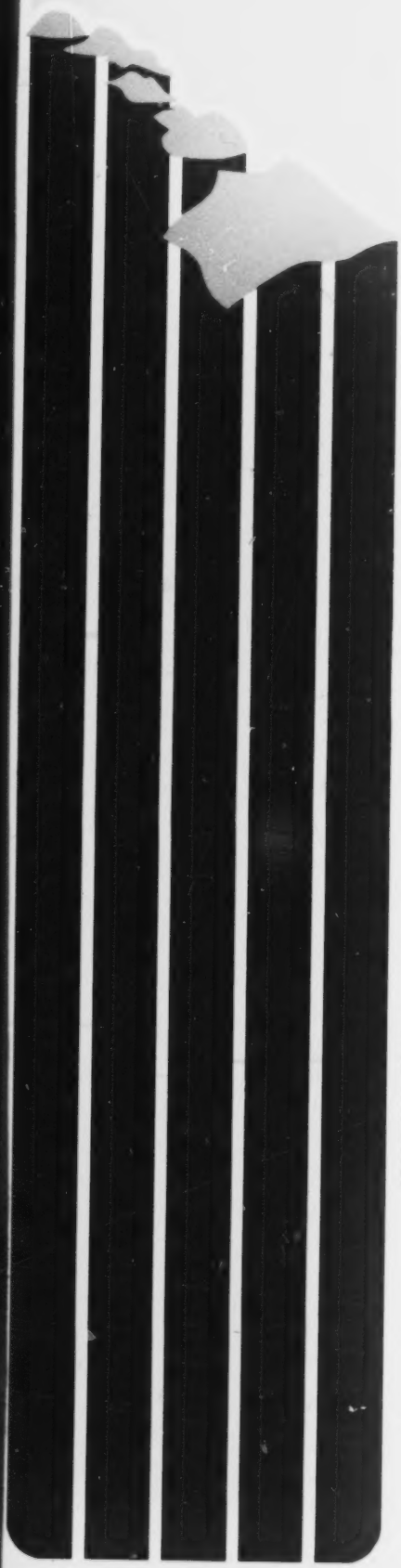
DEPARTMENT OF BUSINESS AND ECONOMIC DEVELOPMENT



QUARTERLY

STATISTICAL & ECONOMIC REPORT

RESEARCH & ECONOMIC ANALYSIS DIVISION

- The Economy: Recent Trends and Outlook
- The Honolulu Consumer Price Index, 1988
- Statistical Tables

1st QUARTER 1990

STATE OF HAWAII 1959

This quarterly report has been prepared by the Research and Economic Analysis Division of the State Department of Business and Economic Development (DBED). It presents information and analysis concerning current statistical and economic trends affecting Hawaii. Technical notes and source descriptions have been kept to a minimum. However, the staff of the Research and Economic Analysis Division will be happy to respond to any inquiries of a technical nature that readers may have (548-3067).

The report was prepared under the direction of Dr. Richard Y. P. Joun, Head, Research and Economic Analysis Division, by Hamid Jahanmir, Robert Schmitt, Sharon Nishi, Tu Duc Pham, and Robert Shore.

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1. THE ECONOMY - RECENT TRENDS AND OUTLOOK

Strong economic growth in Hawaii continued through the end of 1989, with unemployment still the lowest in the nation.

Despite a slowdown in activity, the U.S. economy is expected to grow modestly in 1990, which could make the current expansion the longest on record.

The outlook for Hawaii is for some moderation in growth but the tight labor market should preclude any adverse economic impact.

CURRENT ECONOMIC CONDITIONS

Hawaii's economy continued its rapid pace of growth through the end of 1989. A surge of business activity in the last three months of the year resulted in a 20 percent increase in overall taxable transactions for the quarter. Construction activity showed strong gains during the last quarter of the year, which pushed the value put in place up 27 percent from the same 1988 period. Some moderation was experienced in tourism, which showed a modest 3 percent increase in visitor arrivals for the last quarter of the year. A surge in consumer prices in the second half of 1989 resulted in an overall increase of 5.8 percent in the Honolulu Consumer Price Index.

Visitor Industry

The more moderate growth rate in visitor arrivals in the fourth quarter was due mainly to a slowdown in the westbound direction. Westbound visitors (primarily U.S. and Canadian citizens) grew only 1.6 percent in number from the same quarter a year earlier. Eastbound visitors, primarily from Japan and other Asian nations, increased 6.5 percent in the final quarter of 1989, up from a 1.2 percent increase in the previous quarter.

Preliminary estimates for 1989 visitor activity from the Hawaii Visitors Bureau (HVB) showed an overall 7.3 percent increase in visitor arrivals to the State, for a total of 6.6 million. Visitors traveling westbound increased 8.1 percent for the year while eastbound arrivals were up by 5.6 percent.

The slower fourth quarter growth rate was not unexpected given the slowdown in the U.S. economy. DBED continues to

Figure 1-1
Business Sales
(percent change from same quarter in previous year)

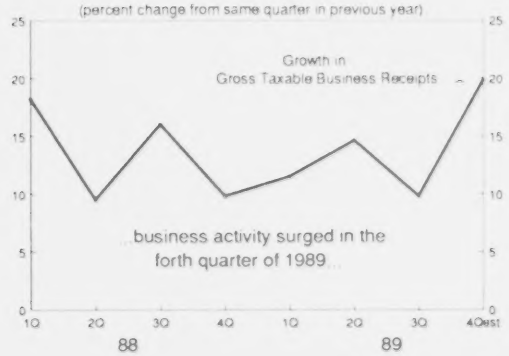


Figure 1-2
Unemployment
(percent of total labor force)

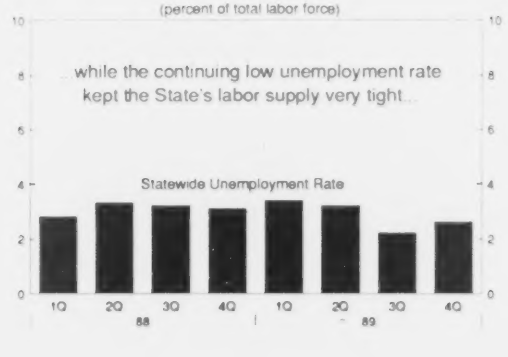


Figure 1-3
Visitor Arrivals
(annualized quarterly totals)

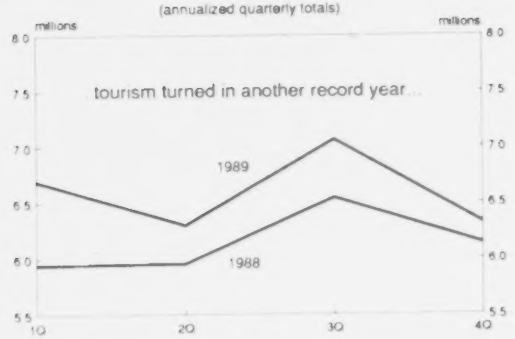
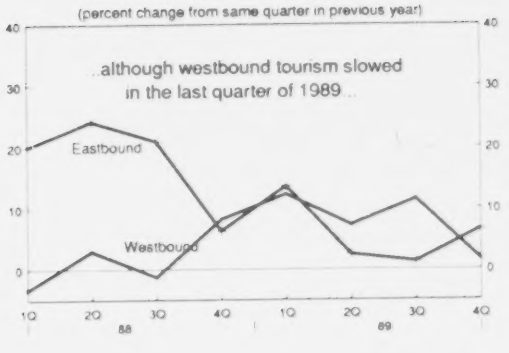


Figure 1-4
Tourism Growth
(percent change from same quarter in previous year)



anticipate about a 2 percent overall increase in visitor arrivals in 1990. This is based on a forecast of slower U.S. economic growth and on last year's increase in the value of the dollar against the yen, which raises the cost of Hawaii vacations for Japanese visitors.

Construction

Helped by the strong fourth quarter performance noted earlier, the value of construction put in place increased 18 percent in 1989, pushing the total construction value for the year well over the $3 billion mark. Employment in the industry increased over 16 percent in 1989 to a preliminary estimate of 26,800 workers.

New private building permits, which can sometimes indicate future trends, showed some weakness in the fourth quarter of 1989, declining 27 percent from the same quarter in 1988. However, it is too early to tell if this signals a softening in demand for future construction or is simply an anomaly in the data. Total private permits issued in 1989 increased 22 percent in value and should help sustain the industry through 1990 despite the drop in the fourth quarter permits. Continued weakness in permit value would, however signal a slowdown for construction after current projects are complete. New authorizations for government construction remained strong through the fourth quarter of 1989 with the total for the year up by approximately 24 percent.

Defense Activity

Defense activity, the State's second largest source of outside income, showed stable, if modest growth last year and is expected to showed a similar pattern in 1990. Defense expenditures by the three major services and the Coast Guard increased by 3 percent during the first nine months of 1989. Spending by the major services totaled about $1.9 billion in 1989, although this figure excludes a number of defense activities not reported on a quarterly basis. A list of anticipated base closings issued recently by the Department of Defense included none of Hawaii's installations. In a recent visit to Hawaii, Defense Secretary Cheney emphasized Hawaii's important strategic location in the Pacific.

Agriculture

Agriculture had a mixed performance in 1989 with sugar and pineapple production tonnage down by 7 and 12 percent, respectively, but with some other activities showing gains.

Adverse weather conditions were responsible for much of the decline in production. However, a number of diversified agricultural crops showed increases. Preliminary estimates set the coffee production at 2.2 million pounds during 1989, a 10 percent increase over 1988. It is also estimated that total farm

revenues will reach a record high of $8.9 million, an increase of 35 percent over the previous year. Last year's macadamia nut crop is estimated at 51 million pounds, 12 percent over the 1988 record output. In total, diversified agricultural sales increased 7 percent in 1989 according to excise tax data.

General Business Conditions

As a result of the continued expansion in the tourism and construction industries, total business sales subject to general excise and use tax increased almost 20 percent in the last quarter of 1989 and were up 13 percent during the first eleven months of 1989. Retailing, which contributes one-third of total taxable transactions, increased by 11 percent from January through November of last year.

Employment and Income

Due to continued growth and a tight labor market, Hawaii's unemployment rate remained the lowest in the nation at 2.6 percent in the last quarter of 1989. The estimated jobcount increased by at least 3 percent to 539,000 (a preliminary estimate which is due to be revised upward).

The preliminary count of agricultural wage and salary jobs showed a 2.4 percent decline in 1989, which follows a 6.3 percent decline in 1988. Transportation services reported a 4.8 percent increase in 1989. The sugar industry experienced a 10.7 percent decline in jobs for the year. Construction had the highest job gain at 16.2 percent for the year by preliminary count.

Personal income, one of the key indicators of overall economic activity, increased by 11.1 percent from the third quarter of 1988 to the third quarter of 1989. This increase was well above the national average of 8.5 percent.

Consumer Prices

Honolulu consumer prices, as measured by the Consumer Price Index for all Urban Consumers (CPI-U), showed an increase of 5.8 percent during 1989 compared to 5.9 percent in 1988. The sharpest increase among the major categories was 6.7 percent in the transportation price group, followed by a 6.6 percent increase for the housing price group.

The National Economy

The long expansion of the national economy, now in its eighth year, slowed perceptibly in the fourth quarter of 1989. The economy grew at an estimated rate of 2.9 percent for the year but only 0.4 percent in the last quarter. Gains in U.S. exports have contributed to much of the economic expansion in the past few years. At the same time, inflation as measured by the broad

Figure 1-5
Construction Activity
(annualized quarterly totals)

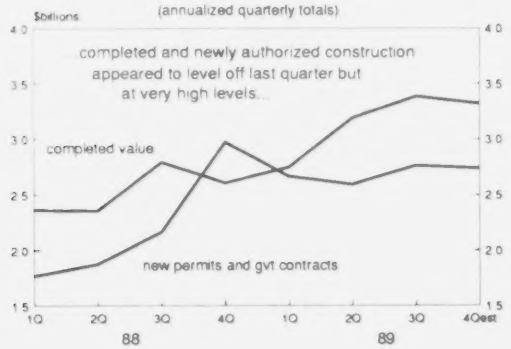

$billions
completed and newly authorized construction appeared to level off last quarter but at very high levels...
completed value
new permits and gvt contracts
1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Qest
88
89

Figure 1-6
Retailing and Services Growth
(percent change from same quarter in previous year)

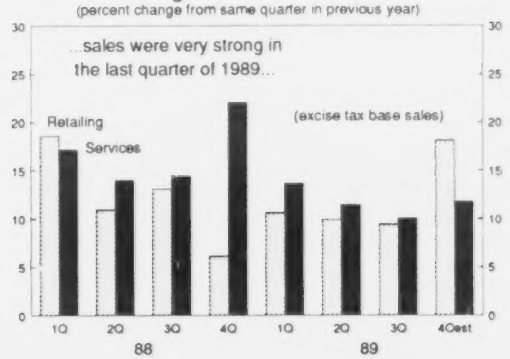


Figure 1-7

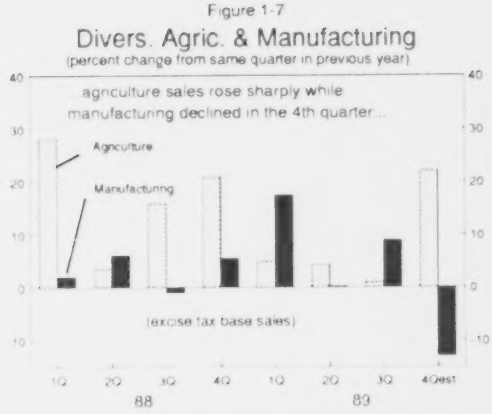
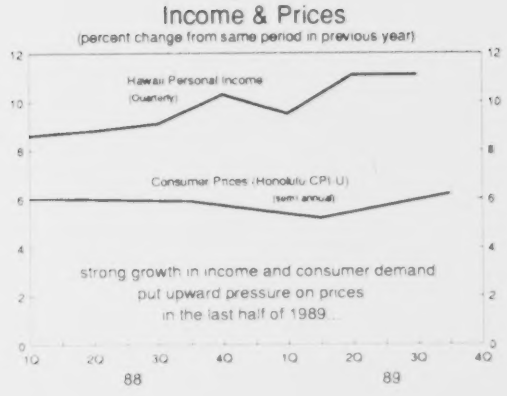


Figure 1-8


Income & Prices
(percent change from same period in previous year)
Hawaii Personal Income
(Quarterly)
Consumer Prices (Honolulu CPI-U)
(semi-annual)
strong growth in income and consumer demand
put upward pressure on prices
in the last half of 1989...
1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q
88
89

based GNP price deflator index advanced somewhat slower than consumer prices. Last year, the deflator increased by 4.1 percent compared to a 4.8 percent increase in the U.S. consumer price index. The U.S. unemployment rate decreased from the recession peak of almost 10 percent in 1982 to slightly above 5 percent in 1989.

In the financial sector, the Federal funds rate--the key interbank interest rate which the Federal Reserve System controls--averaged about 9 percent in 1989 compared to 8 percent in 1988. In the second quarter of 1989, the Federal Reserve switched to an easier money policy and rates fell slowly through the end of the year.

Because of the high Federal deficit, the U.S. depends heavily on an inflow of foreign capital to keep interest rates low. Since January of 1990, however, short- and long-term interest rates have increased somewhat due to higher interest rates abroad. These rates have in turn attracted foreign capital away from the U.S. money market, placing upward pressure on U.S. interest rates.

On the Federal budget front, progress has been made since 1985 on the budget deficit based on the Gramm-Rudman-Hollings deficit-reduction act. The total budget deficit has fallen from 3.5 percent of GNP in 1986 to approximately 1.5 percent in 1989. At the same time the current account, foreign trade

Figure 1-9

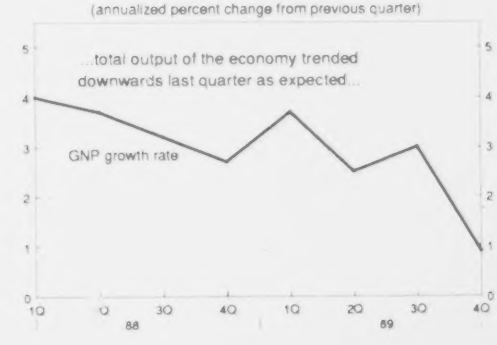
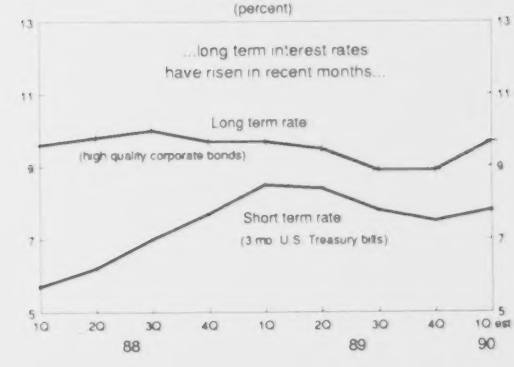

Gross National Product
(annualized percent change from previous quarter)
...total output of the economy trended
downwards last quarter as expected...
GNP growth rate
1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q
88
89

Figure 1-10



deficit, has fallen to about 2.5 percent of GNP.

The immediate challenge for economic policy-makers is to keep consumer and business demand moderate so that price pressures do not burst into rapid inflation. However, demand cannot be discouraged so much as to cause a recession. There may be a fine line between higher inflation and a recession. Although there is a reasonable chance that this balance can be maintained, it will take sound fiscal and monetary policy to accomplish.

The Federal Reserve has been attempting to check inflation while preventing the weak economy from slipping into a recession. Now that the chances of a recession have lessened, the Federal Reserve may tighten its monetary policy to reduce inflation and to keep foreign capital in the United States, which is needed to finance the Federal budget deficit.

ECONOMIC OUTLOOK AND FORECAST

As of February 1990, a "consensus" of over 50 national economic forecasters constructed by Blue Chip Economic Indicators forecast the U.S. economy to grow 1.6 percent in 1990. Consumer prices were forecast to increase 4.3 percent on average. The "consensus" continues to reflect no recession in the foreseeable future.

Tables 1-1 to 1-5 present the updated economic forecast for the nation and Hawaii.

Hawaii's economy entered its sixth year of accelerated economic growth in 1990. Overall, the Hawaii Econometric Forecasting Model indicates that Hawaii's economy will continue to grow in 1990, and at a stronger pace than the U.S. economy. The total number of jobs will likely increase 3.4 percent this year before slowing to about 3.1 percent in 1991. A continued tight labor market will keep joblessness low in spite of higher productivity (which tends to reduce

Table 1-1
U.S. Economic Forecast to 1991

	Forecast					Estimate	Forecast	
	1Q'90	2Q'90	3Q'90	4Q'90	1Q'91	1989	1990	1991
Annualized % growth rates from prior quarter						Annual data		
Real GNP	1.1	1.7	2.2	2.4	2.4	2.9	1.6	2.4
Industrial production	0.2	1.6	2.1	2.7	2.5	3.3	1.3	2.5
GNP deflator	4.5	3.9	3.9	4.0	4.1	4.1	4.0	4.0
Consumer price index	5.0	4.0	4.2	4.2	4.2	4.8	4.3	4.2
Producer price index	5.2	2.7	3.2	3.5	3.8	5.3	3.5	n.a.
Real disposable income	1.7	1.8	2.2	2.4	2.5	4.1	2.1	2.3
Corp. pretax profits	n.a.	n.a.	n.a.	n.a.	n.a.	0.0	-3.0	7.6
Housing Starts	n.a.	n.a.	n.a.	n.a.	n.a.	-8.1	3.6	2.1
Net exports	7.8	1.1	0.1	1.8	1.3	24.8	0.4	10.0
Average for quarter (percent)								
Unemployment rate	5.4	5.6	5.6	5.6	5.7	5.3	5.6	5.6
3-mo.Treas. bill rate	7.9	7.6	7.4	7.4	7.5	8.1	7.6	7.3
AAA corp. bond rate	9.2	9.1	9.0	9.0	9.0	9.3	9.1	8.9

n.a.: not available

Source: Eggert Economic Enterprises, Blue Chip Economic Indicators, February 10, 1990, Blue Chip Financial Forecast, March 1, 1990.

Table 1-2
SUMMARY OF HAWAII FORECAST TO 1991

	Estimate		Forecast		Forecast	
	1989	% Change	1990	% Change	1991	% Change
Gross State Product						
Millions of current dollars	24,025	11.0	26,256	9.3	28,583	8.9
Millions of constant 1982 dollars	18,372	5.8	19,212	4.6	19,212	4.2
GSP deflator index (1982=100)	130.8	5.0	136.7	4.5	142.8	4.5
Visitor arrivals (millions)	6.6	7.3	6.7	2.0	7.0	3.5
Consumer Price Index (CPI-U) (1982-84=100)	128.7	5.8	135.8	5.5	142.6	5.0
Personal Income						
Millions of current dollars	20,501	11.4	22,501	9.8	24,492	8.8
Millions of constant 1980 dollars	13,207	5.3	13,740	4.0	14,244	3.7
Total Jobs (thousands)	545.7	4.3	564.5	3.4	582.2	3.1
Construction, real value (constant 1972 dollars)	1,029.0	14.6	1,191.0	15.8	1,258.0	5.6

Source: Department of Business and Economic Development, Hawaii Econometric Modeling Project, March 1990.

demand for labor) and a slightly higher than expected 1.8 percent increase in population growth. Personal income will grow about 9.8 percent this year and 8.8 percent in 1991. With a tax rebate of $125 per person and other changes in Hawaii's income tax law passed by the 1989 Legislature, $150 to $200 million in additional tax refunds to Hawaii's residents is estimated, which will further stimulate the economy during the second half of this year.

Construction has been the strongest growth sector in the economy over 1989. It is expected that strong growth in construction activity will continue in 1990. In 1989, the combined value of private construction permits and the value of government contracts awarded increased 23 percent. That increase indicates that the construction industry will reach an all-time high for both employment and activity this year. The number of jobs in the industry will probably average about 29,300 this year. This compares to the previous record high of 28,000 jobs in 1975.

In tourism, the stronger value of the U.S. dollar versus the Japanese yen will probably lower the growth rate of Japanese visitors to Hawaii even though it is forecast that Japanese economic growth will remain strong. The growth of Japanese visitor arrivals is expected to be somewhat higher in 1991 and beyond, as the Japanese government continues to stimulate overseas travel.

Westbound visitors to Hawaii, mainly U.S. and Canadian citizens, increased in 1989 after two years of slow growth. However, the expected slowdown in the national economy will dampen westbound visitor growth this year. If double-digit increases in Hawaii's hotel room rates continue in 1990, that might also slow westbound tourism growth.

As a result of these factors, the DBED Tourism Forecasting Model anticipates no growth in the number of Japanese visitors to Hawaii this year, while the number of U.S. visitors from other states is forecast to grow at a slower rate of 2.5 percent. Overall, the number of overnight or longer visitors to Hawaii is forecast to increase 2 percent in 1990.

Figure 1-11

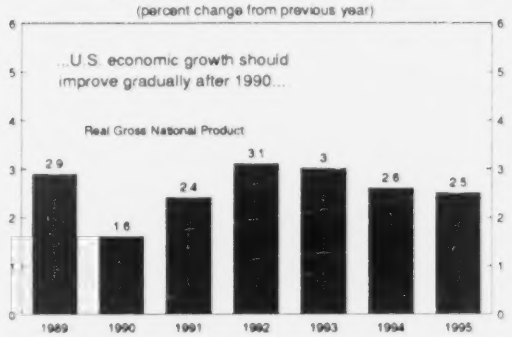
National Outlook: Nearterm

(annualized percent change from previous quarter)

Figure 1-12

National Outlook: To 1995

(percent change from previous year)



National defense expenditures in the coming years are expected to decline in real terms because of a perceived diminishing military threat to the United States. However, based on the present situation and knowledge of past trends, a decline in military expenditures in Hawaii is not expected. In fact, military expenditures in Hawaii could increase due to a withdrawal of U.S. forces from some parts of Asia and the Pacific. Thus, the number of military personnel is expected to be stable over the 1990-1995 period while military wages are expected to increase about 5 percent a year over the same period.

One adverse effect of Hawaii's robust economic growth might be a higher level of inflation. Hawaii's unemployment rate, which is now at a very low level, will tend to put more pressure on wages and prices. The DBED forecast for consumer prices in Hawaii is 5.5 percent in 1990 or about 1 percentage point above the U.S. rate.

Figure 1-13

Hawaii Outlook: Tourism

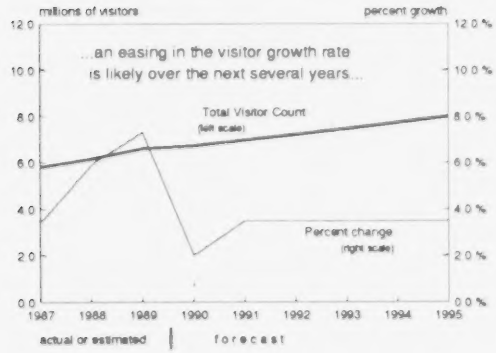
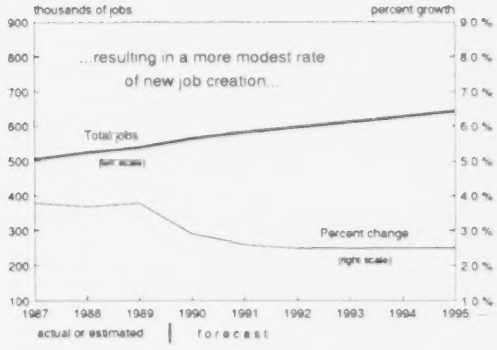

millions of visitors
percent growth
...an easing in the visitor growth rate is likely over the next several years...
Total Visitor Count
(left scale)
Percent change
(right scale)
1987 1988 1989 1990 1991 1992 1993 1994 1995
actual or estimated
forecast

Figure 1-14

Hawaii Outlook: Jobs Growth



DBED

INTERMEDIATE RANGE ECONOMIC FORECAST FOR HAWAII

1990 to 1995

MARCH 1990

TABLE 1-3
KEY ECONOMIC ASSUMPTIONS

	1987	1988	1989	1990	1991	1992	1993	1994	1995
Value	Actual		Estimate	Forecast					
HONOLULU CPI-U (1967=100)	114.9	121.7	128.7	135.8	142.6	149.0	155.7	162.7	170.0
VISITOR ARRIVALS (THOUS)	5,799.8	6,142.4	6,591.0	6,719.6	6,954.8	7,198.2	7,450.1	7710.9	7980.7
TOTAL POPULATION (THOUS)	1,082.0	1,096.2	1,112.1	1,131.5	1,153.4	1,174.1	1,195.7	1,218.0	1241.1
MORTGAGE RATE (%)	10.5	10.5	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PRIME RATE (%)	8.5	8.5	10.0	10.0	10.0	10.0	10.0	10.0	10.0
REAL GNP GROWTH(%) 1/	3.7	4.4	2.9	1.6	2.4	3.1	3.0	2.6	2.5
Annual percent growth									
HONOLULU CPI-U	5.0	5.9	5.8	5.5	5.0	4.5	4.5	4.5	4.5
VISITOR ARRIVALS	3.4	5.9	7.3	2.0	3.5	3.5	3.5	3.5	3.5
TOTAL POPULATION	1.7	1.3	1.5	1.7	1.8	1.8	1.8	1.9	1.9

1/ "Blue Chip Economic Indicators" February 10, 1990.

Source: Research and Economic Analysis Division, Department of Business and Economic Development, Hawaii Econometric Forecasting Project, March 1990.

TABLE 1-4

PROJECTED PERSONAL INCOME AND COMPONENTS

CURRENT DOLLARS

	1988	1989	1990	1991	1992	1993	1994	1995
	Actual	Estimated			Forecast			
Millions of dollars								
PERSONAL INCOME	18,398.8	20,500.7	22,500.9	24,491.9	26,512.2	28,667.6	30,996.9	33,521.5
NET EARNINGS OF RESIDENTS	13,219.6	14,689.8	16,237.8	17,760.3	19,304.7	20,965.9	22,764.9	24,720.1
LABOR INCOME	12,778.1	14,231.3	15,721.9	17,189.1	18,677.3	20,287.3	22,032.2	23,928.3
WAGES & SALARIES	11,751.7	13,056.1	14,416.1	15,754.8	17,112.6	18,581.6	20,173.7	21,903.7
OTHER	1,026.4	1,175.2	1,305.8	1,434.3	1,564.7	1,705.7	1,858.5	2,024.6
PROPRIETORS' INCOME	1,349.8	1,489.9	1,675.8	1,857.6	2,042.2	2,232.8	2,438.5	2,663.0
LESS: SOCIAL INSUR. TAXES	(908.3)	(1,031.4)	(1,159.9)	(1,286.4)	(1,414.8)	(1,554.2)	(1,705.8)	(1,871.2)
PROPERTY INCOME	2,723.6	3,127.2	3,333.0	3,541.3	3,750.4	3,973.5	4,211.5	4,465.5
TRANSFER PAYMENTS	2,455.6	2,683.7	2,930.2	3,190.3	3,457.0	3,728.2	4,020.6	4,336.0
Annual (%) growth rates								
PERSONAL INCOME	9.3	11.4	9.8	8.8	8.2	8.1	8.1	8.1
NET EARNINGS OF RESIDENTS	9.3	11.1	10.5	9.4	8.7	8.6	8.6	8.6
LABOR INCOME	9.9	11.4	10.5	9.3	8.7	8.6	8.6	8.6
WAGES & SALARIES	9.8	11.1	10.4	9.3	8.6	8.6	8.6	8.6
OTHER	11.4	14.5	11.1	9.8	9.1	9.0	9.0	8.9
PROPRIETORS' INCOME	7.3	10.4	12.5	10.9	9.9	9.3	9.2	9.2
LESS: SOCIAL INSUR. TAXES	14.3	13.5	12.5	10.9	10.0	9.9	9.8	9.7
PROPERTY INCOME	11.1	14.4	6.6	6.3	5.9	5.9	6.0	6.0
TRANSFER PAYMENTS	7.0	9.3	9.2	8.9	8.4	7.8	7.8	7.8

CONSTANT DOLLARS

	1988	1989	1990	1991	1992	1993	1994	1995
	Actual	Estimated			Forecast			
Millions of 1980 dollars								
PERSONAL INCOME	12,547.5	13,207.3	13,740.2	14,243.9	14,754.8	15,267.3	15,797.0	16,347.9
NET EARNINGS OF RESIDENTS	9,010.5	9,463.4	9,915.6	10,328.9	10,743.7	11,165.7	11,501.7	12,055.6
LABOR INCOME	8,709.6	9,168.3	9,600.6	9,996.7	10,394.5	10,804.3	11,228.3	11,669.5
WAGES & SALARIES	8,010.0	8,411.2	8,803.2	9,162.6	9,523.7	9,895.9	10,281.2	10,682.1
OTHER	699.6	757.1	797.4	834.2	870.8	908.4	947.2	987.4
PROPRIETORS' INCOME	920.0	959.8	1,023.3	1,080.4	1,136.6	1,189.1	1,242.7	1,298.7
LESS: SOCIAL INSUR. TAXES	(619.1)	(664.8)	(708.3)	(748.1)	(787.4)	(827.7)	(869.3)	(912.6)
PROPERTY INCOME	1,863.2	2,014.7	2,035.3	2,059.5	2,087.2	2,116.1	2,146.3	2,177.8
TRANSFER PAYMENTS	1,673.7	1,728.9	1,789.3	1,855.4	1,923.9	1,985.5	2,049.0	2,114.6
Annual (%) growth rates								
PERSONAL INCOME	3.2	5.3	4.0	3.7	3.6	3.5	3.5	3.5
NET EARNINGS OF RESIDENTS	3.2	5.0	4.4	3.9	3.8	3.7	3.7	3.9
LABOR INCOME	3.8	5.3	4.7	4.1	4.0	3.9	3.9	3.9
WAGES & SALARIES	3.7	5.0	4.7	4.1	3.9	3.9	3.9	3.9
OTHER	5.2	8.2	5.3	4.6	4.4	4.3	4.3	4.2
PROPRIETORS' INCOME	1.3	4.3	6.6	5.6	5.2	4.6	4.5	4.5
LESS: SOCIAL INSUR. TAXES	8.0	7.4	6.6	5.6	5.2	5.1	5.0	5.0
PROPERTY INCOME	4.9	8.1	1.0	1.2	1.3	1.4	1.4	1.5
TRANSFER PAYMENTS	-1.1	3.3	3.5	3.7	3.7	3.2	3.2	3.2

Source: Department of Business and Economic Development, Hawaii Econometric Modeling Project, March, 1990.

TABLE 1-5
PROJECTED EMPLOYMENT (JOBS) BY SECTOR

	1988	1989	1990	1991	1992	1993	1994	1995
	Actual or Estimate		Forecast					
Thousands								
TOTAL JOBS	523.5	545.7	564.5	582.2	597.2	612.2	627.3	642.8
CONSTRUCTION	23.1	26.9	29.3	30.8	30.8	30.8	30.8	30.8
MANUFACTING	22.3	22.8	23.2	23.3	23.4	23.5	23.6	23.7
DURABLE	4.3	4.6	4.9	5.1	5.2	5.4	5.5	5.6
NONDURABLE	18.1	18.2	18.2	18.2	18.2	18.2	18.1	18.1
FOOD PROCESSING	10.3	10.1	10.0	9.8	9.7	9.6	9.5	9.4
OTHER	7.8	8.1	8.2	8.4	8.5	8.6	8.6	8.7
TRANSPORTATION	27.9	29.6	30.0	30.7	31.4	32.2	33.0	33.9
COMMUNICATIONS & UTILITIES	10.1	9.8	9.8	9.8	9.8	9.8	9.8	9.8
TRADE	127.6	131.9	136.2	140.6	145.1	149.7	154.4	159.3
RETAIL	107.1	111.0	114.9	119.0	123.0	127.2	131.4	135.8
EAT & DRINK	44.6	48.1	49.6	51.5	53.4	55.4	57.6	59.8
WHOLESALE	20.6	20.9	21.2	21.7	22.1	22.6	23.0	23.5
FINANCE/INSUR/REAL EST.	34.8	36.2	38.2	40.1	41.9	43.8	45.6	47.4
SERVICES	132.3	139.7	148.0	151.7	157.1	162.5	167.8	173.3
HOTELS	34.5	37.5	38.0	38.6	39.3	39.9	40.7	41.4
GOVERNMENT	99.1	101.4	103.9	106.4	109.0	111.8	114.6	117.5
FEDERAL	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
STATE & LOCAL	65.7	67.9	70.4	72.9	75.5	78.3	81.1	84.0
AGRICUL. (WAGE & SALARY)	10.0	10.0	10.1	10.1	10.1	10.1	10.2	10.2
SUGAR	3.7	3.6	3.5	3.4	3.3	3.2	3.1	3.0
PINEAPPLE	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9
DIVERSIFIED	4.6	4.5	4.7	4.8	4.9	5.0	5.2	5.3
SELF-EMPLOYED	36.4	37.3	38.1	38.7	39.4	40.1	40.7	41.4
Annual percentage growth								
TOTAL JOBS	3.7	4.2	3.4	3.1	2.6	2.5	2.5	2.5
CONSTRUCTION	8.8	16.5	8.9	5.1	0.0	0.0	0.0	0.0
MANUFACTING	1.8	2.2	1.8	0.4	0.4	0.4	0.4	0.4
DURABLE	8.0	7.0	6.5	4.1	2.0	3.8	1.9	1.8
NONDURABLE	0.6	0.6	0.0	0.0	0.0	0.0	-0.5	0.0
FOOD PROCESSING	3.5	-1.9	-1.0	-2.0	-1.0	-1.0	-1.0	-1.1
OTHER	-3.1	3.8	1.2	2.4	1.2	1.2	0.0	1.2
TRANSPORTION	3.7	6.1	1.4	2.3	2.3	2.5	2.5	2.7
COMMUNICATIONS & UTILITIES	2.0	-3.0	0.0	0.0	0.0	0.0	0.0	0.0
TRADE	3.1	3.4	3.3	3.2	3.2	3.2	3.1	3.2
RETAIL	3.6	3.6	3.5	3.6	3.4	3.4	3.3	3.3
EAT & DRINK	0.9	7.8	3.1	3.8	3.7	3.7	4.0	3.8
WHOLESALE	0.8	1.5	1.4	2.4	1.8	2.3	1.8	2.2
FINANCE/INSUR/REAL EST.	3.1	4.0	5.5	5.0	4.5	4.5	4.1	3.9
SERVICES	4.5	5.6	4.5	3.9	3.6	3.4	3.3	3.3
HOTELS	10.4	8.7	1.2	1.7	1.7	1.7	1.9	1.6
GOVERNMENT	3.2	2.3	2.5	2.4	2.4	2.6	2.5	2.5
FEDERAL	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STATE & LOCAL	3.8	3.3	3.7	3.6	3.6	3.7	3.6	3.6
AGRICUL. (WAGE & SALARY)	-5.3	0.0	1.0	0.0	0.0	0.0	1.0	0.0
SUGAR	-3.0	-2.7	-2.8	-2.9	-2.9	-3.0	-3.1	-3.2
PINEAPPLE	-8.8	5.6	0.0	0.0	0.0	0.0	0.0	0.0
DIVERSIFIED	-5.3	-2.2	4.4	2.1	2.1	2.0	4.0	1.9
SELF-EMPLOYED	5.7	2.5	2.1	1.6	1.8	1.8	1.5	1.7

Source: Department of Business and Economic Development, Hawaii Econometric Forecasting Project, March 1990.

2. REGIONAL INDEXES OF LEADING ECONOMIC INDICATORS

Peter Stenberg

[Dr. Peter Stenberg is a research associate at the University of Minnesota and has done extensive investigation into the development of regional economic indicators series. In this essay, prepared especially for DBED, Dr. Stenberg introduces our readers to the concept, methods, and problems involved in developing regional economic indicators.]

State and local economic indicators are prepared for several purposes, including their direct use in showing current economic conditions in state and local regions, particularly in indicating the turning points of business cycles. They serve as an early warning system of imminent changes in regional business conditions and they provide measures of the severity and scope of regional recessions. Beyond the more attention-getting measures of unemployment, employment, and other macroeconomic measures, people in business and industry--economists, planners, and policymakers--need a small set of indicators to understand a region's economic health. Therefore, indices which combine several economic measures may be used to summarize current conditions and trends.

Concept of the Leading Indicator Series

The prototype for state and local indicators is the U.S. economic indicator series initially developed by Wesley Mitchell and colleagues at the National Bureau of Economic Research (NBER) during the 1920's. The current U.S. index of leading economic indicators, index of coincident economic indicators, and index of lagging economic indicators are essentially the product of the refinement of indicator methodology done by Moore & Shiskin in the late sixties. The indices have undergone a number of changes in variable composition since then and there are now eleven variables in the index of leading economic indicators, four variables in the index of coincident indicators, and six variables in the index of lagging economic indicators.

A monthly index of leading economic indicators is used as a measure to indicate the direction of the growth of a national or regional economy. The index is a short-term forecast, usually predicting the economic trend six to twelve months into the future. It is made up of a number of variables, each of which is considered a precursor for the direction of general economic growth. These variables, in themselves, are not as reliable as the composite index. How the index is developed and how the variables are chosen is the subject of the rest of this paper.

Identifying the Reference Cycle

Before any index of leading economic indicators is developed a reference cycle has to be determined. A reference cycle simply refers to series of data upon which the turning points (the peaks or troughs) of business cycles are determined. 1/ On the national level, the turning points are determined by a committee from the NBER on the basis of the quarterly GNP as well as monthly roughly coincident variables. In other words, a determination is made whether a peak or trough occurred, as well as when it occurred. On the state or regional level, the choice of the peaks and troughs of the business cycle is usually more difficult for two reasons. One, the regional economy rarely has the same makeup of the national economy, and hence, rarely follows the same path as the national economy. 2/ Two, the availability and reliability of data is less at the regional level than at the national level.

The most common method at the regional level for determining the reference cycle is to use the total nonagricultural wage and salary

employment. The series is usually sufficiently long and sufficiently consistent over time at the state and regional level to identify a number of turning points. Hence, this data series often has an advantage over other available series which often have problems with either limited historical data or with significant changes in definition during the period covered. Some regions have used unemployment as their reference cycle. However, unemployment is not a good variable to use. Unemployment does not necessarily mean worsening economic conditions. During recovery stages from recessions unemployment will actually increase because more people are reentering the labor market due to improvement in economic conditions. Since they will not likely find employment immediately, these new entrants will add to the unemployment count.

Like the national reference cycle, the turning points at the regional level are determined by judgement on basis of available data. The reference cycle is only needed to identify the turning points, not to analyze the economy's rate of growth.

Index of Coincident Indicators

The index of coincident economic indicators is made up of variables that roughly coincide with the reference cycle. The coincident index is designed to be a comprehensive measure of both the input side (business purchases) and the output side (business sales) of business activity, and therefore is often used by analysts as a snapshot of the general current condition of the economy. The index gives some precision to the timing of business cycle peaks and troughs. Consequently, turning points in the variables have served as primary observations in determining the reference dates for the peaks and troughs of the business cycle. NBER's national coincident index is composed of four variables: nonagricultural employment, personal income, industrial production, and manufacturing and trade sales.

The variables in a coincident index are chosen on the basis of six criteria: (1) economic significance, (2) statistical adequacy, (3) timing, (4) conformity, (5) smoothness, and (6) currency. 3/

Economic significance is a measure of the role the indicator plays in the business cycle and how well understood the variable is. Statistical adequacy is determined by how well the data measures the indicator variable: specifically, the quality of the reporting system, the degree of sampling, the time period of the sampling, the availability of measurement error, the frequency of revisions of the data series, the length of the time series, and the comparability over time. The timing of business cycles refers to how consistently the variable has coincided, led, or lagged behind the business cycle over time. 4/ Conformity to the historical business cycle means how regularly and consistently the movements of the indicator reflected the contractions and expansions in the general economy. Smoothness of an indicator means how well a cyclical turn can be distinguished from short random movements. Currency of the data series refers to the promptness and the periodicity in which the data are given out.

The Bureau of Economic Analysis (BEA) developed a method of index construction used for the U.S. coincident, leading, and lagging indices. Similar methods are used in a number of states and regions in the U.S., including Minnesota. The basic approach in the construction of an index is that variables are first standardized to prevent more volatile components from dominating the index. Next, each component is weighted. The weights are based on a score calculated for each variable from the six criteria used to choose the variables for the index. Finally, the indicators are combined into one index with a given base period being assigned the value of 100. 5/ The trend of this coincident index is determined in order to calibrate the trends in leading and lagging indices.

Not all states and regions have used the BEA approach in combining the data series into one composite index. Many have used a more arbitrary weighting scheme. One common method is to use weights based on some observation of their relative contribution to the economy. One shortcoming of this method is that it does not take into account the criteria mentioned earlier and hence will be more likely than the BEA method to have problems later on with mistaking turning points and rates of growth (or decline).

Index of Leading Indicators

Leading economic indicators shed light on changes starting to occur in the general economy. They measure the flows within an economy that affect the level of general business activity. They also may represent anticipations in the business decision sequence and early stages of the investment and production processes.

The procedure for the selection of leading economic indicators is based on the same six criteria used for the coincident. Of course, the timing criterion is used differently here. Instead of concern with an indicator being roughly coincident, the indicator is now evaluated on the basis of consistency in leading the reference cycle.

The selected leading indicators are combined in the same manner as in the coincident indicator series, but with one additional step. The additional step adjusts the trend of the leading index to that of the coincident index. Hence, the growth occurring in the leading economic index would indicate that the general economy will be growing by the same amount later.

The weakness in an index of leading economic indicators is that, in general, it does not lead each turning point of the reference cycle by the same number of months. Also, the individual months will not always match up one-to-one with the coincident index. In other words, a one month decline in the index of leading economic indicators may not be matched with a corresponding one month decline in the coincident index. In addition, an index of leading indicators should show a decline (rise) over three or more months before it can be safely assumed that general economic activity will decline (increase) in the near future. Hence, any time an index of leading economic indicators is used, there will have to be some amount of interpretation of what it is saying. On the national level this has been done by examining the underlying components to determine the true meaning of the results implied by the index. 6/

Conclusions

All methods for the development and use of index of an leading economic indicators have shortcomings in the determination of the turning points of general economic activity. The general BEA approach is the strongest of the methods used in the development of an index of leading economic indicators. Indices of coincident and leading economic indicators do add information on what is occurring in the economy and the trends taking place. However, the maintenance of these indices is a never ending process of evaluation and reevaluation of the individual components as well as the methodology used to combine them. A good deal of subjective analysis is part of using any index of leading economic indicators.

1/ It should be noted before going on that all variables discussed here, unless otherwise stated, are monthly data that are deseasonalized. Deseasonalization is an important subject in itself, but is not in the scope of this paper. Also, any variable that is in monetary terms must be converted to constant dollars.

2/ Since the regional economy usually does not have peaks or troughs in its economy at the same time as the national economy, it follows that it is, in general, inappropriate to use the national economic turning points as regional reference points.

3/ It should be noted that this is the general procedure followed by the BEA and a number of regional models (including Minnesota) but not in all regional models.

4/ Of course, the timing of a variable, whether it coincides, leads, or lags with

reference to the business cycle determines whether the economic indicator is better as a coincident, leading, or lagging economic indicator, respectively.

5/ Hence, the general economic activity can readily be stated as having grown (or perhaps decreased) by a given percentage since the basic period.

6/ It should be noted that not all state or regional economic indicators have used this systematic approach. Hence, it is difficult, or impossible, to interpret the change in such a leading index without knowing the underlying methodology. Even with the knowledge of the methodology it may be difficult to interpret the results.

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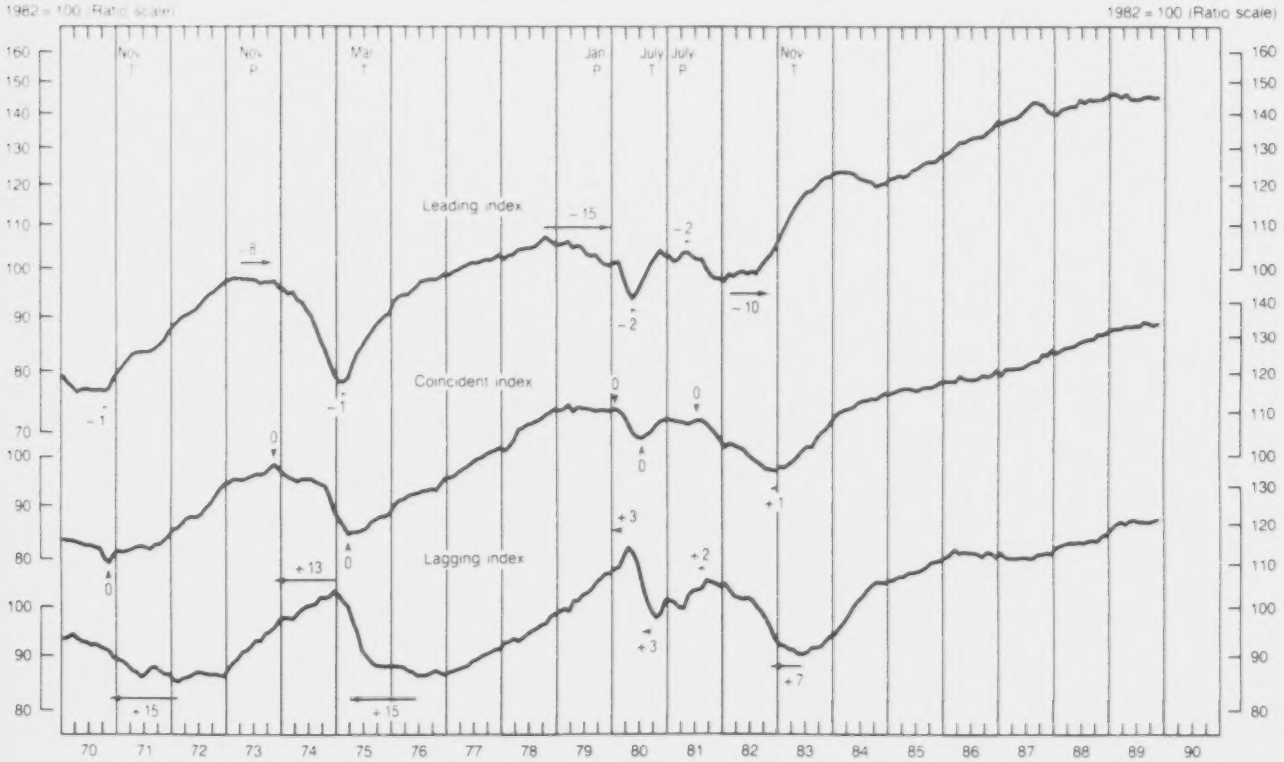


Note.—Peak (P) indicates the end of business cycle expansion and the beginning of recession (shaded area). Trough (T) indicates the end of business cycle recession and the beginning of expansion. Business cycle peaks and troughs are designated by the National Bureau of Economic Research, Inc. The numbers entered on the chart indicate the length of leads (−) and lags (+) in months from the business cycle turning dates.

U.S. Department of Commerce, Bureau of Economic Analysis

3. INCOME AND PRICES

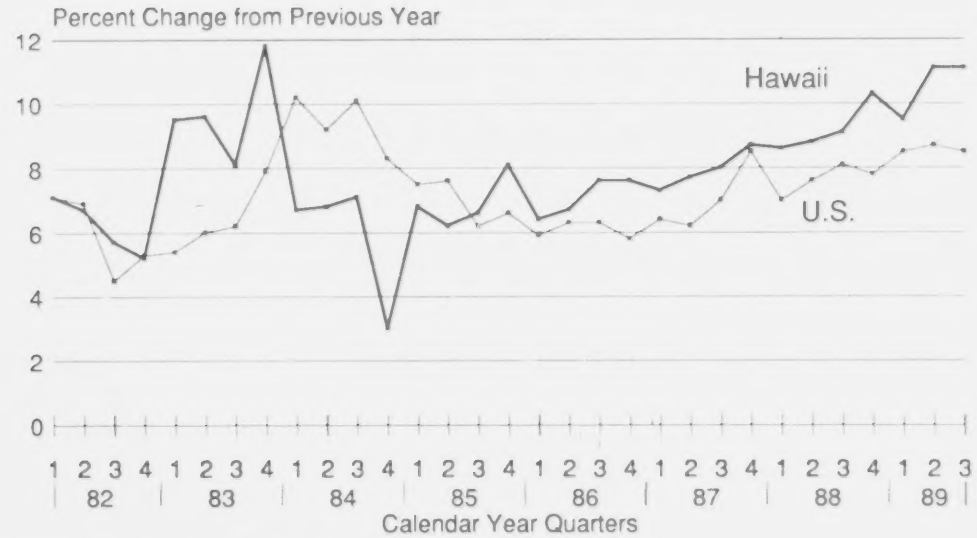
The growth in Hawaii's personal income continued to exceed the national rate due to a surge in construction activity coupled with continued expansion in tourism-related industries such as trade and services. From the third quarter of 1988 to the third quarter of 1989, total personal income increased 11.1 percent, a sixth place ranking in growth for the nation. Construction payrolls in the State grew nearly 40 percent for the same period, faster than in any other state.

With the exception of apparel, all major categories of consumer spending for Honolulu showed higher prices for the second half of 1989 compared with the previous period. According to figures from the U.S. Department of Labor's Bureau of Labor Statistics, prices paid for goods and services purchased by urban consumers in the Honolulu metropolitan area went up 6.2 percent from the second half of 1988 to the second half of 1989 while growth for the first half was 5.2 percent (table 3-5). Price increases for the year averaged 5.8 percent for Honolulu compared with 4.8 percent for the nation.

Although Hawaii's personal income growth exceeded the national rate, because of Honolulu's higher rate of inflation, personal income growth was only slightly higher than the nation in real terms.

Figure 3-1

GROWTH IN PERSONAL INCOME FOR THE U.S. AND HAWAII, QUARTERLY: 1982 TO 1989



SOURCE: DBED, Based on data from the Dept of Commerce, Bureau of Economic Analysis

Table 3-1
TOTAL PERSONAL INCOME FOR THE UNITED STATES AND HAWAII: 1980 TO 1989

[Dollar amounts in millions]

Year	Total personal income 1/		Percent change from same period in previous year	
	United States	Hawaii	United States	Hawaii
1980	2,254,076	10,279	11.1	13.8
1981	2,514,231	11,051	11.5	7.5
1982	2,663,432	11,732	5.9	6.2
1983	2,834,385	12,875	6.4	9.7
1984	3,101,163	13,628	9.4	5.8
1985	3,317,545	14,589	7.0	7.1
1986	3,519,211	15,608	6.1	7.0
1987	3,766,075	16,845	7.0	7.9
1988	4,052,992	18,399	7.6	9.2
1986:				
1 Q	3,448,615	15,204	5.9	6.4
2 Q	3,507,102	15,436	6.3	6.7
3 Q	3,533,294	15,744	6.3	7.6
4 Q	3,587,833	16,047	5.8	7.6
1987:				
1 Q	3,669,103	16,313	6.4	7.3
2 Q	3,723,552	16,618	6.2	7.7
3 Q	3,780,493	17,001	7.0	8.0
4 Q	3,891,151	17,450	8.5	8.7
1988:				
1 Q	3,926,738	17,718	7.0	8.6
2 Q	4,005,952	18,081	7.6	8.8
3 Q	4,085,272	18,551	8.1	9.1
4 Q	4,194,006	19,245	7.8	10.3
1989:				
1Q	4,260,250	19,402	8.5	9.5
2 Q	4,352,603	20,089	8.7	11.1
3 Q	4,433,078	20,609	8.5	11.1

1/ Quarterly income seasonally adjusted at annual rates.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, releases dated August 1989 and January 1990.

Table 3-2
PERSONAL INCOME BY MAJOR SOURCES: 1987 TO 1989

[In millions of dollars and percent]

Item	1987	1988	Annual average IQ-3Q 1989	Growth rate from previous period	
				1987-88	1988-89
By type:					
Wage and salary disbursements	10,705	11,752	12,758	9.8	10.4
Other labor income	921	1,026	1,152	7.3	14.4
Proprietors income	1,258	1,350	1,471	7.3	10.5
Farm	103	114	122	10.7	10.9
Nonfarm	1,155	1,236	1,349	7.0	10.5
By industry:					
Farm	262	275	286	5.0	5.9
Nonfarm	12,623	13,853	15,094	9.7	10.8
Private	8,956	9,955	10,991	11.2	12.7
Agriculture, forestry, fishing	68	82	81	20.6	0.4
Construction	900	1,023	1,355	13.7	35.4
Manufacturing	570	603	628	5.8	4.0
Transp., comm., utilities	1,113	1,195	1,262	7.4	6.5
Wholesale trade	507	552	611	8.9	11.7
Retail trade	1,488	1,661	1,817	11.6	10.9
Finance, insurance, real estate	920	1,011	1,082	9.9	9.3
Services	3,378	3,815	4,156	12.9	12.1
Government and govt. enterprises	3,668	3,898	4,103	6.3	6.1
Federal, civilian	991	1,044	1,096	5.3	5.5
Federal military	1,326	1,352	1,398	2.0	3.2
State and local	1,350	1,501	1,609	11.2	9.1
Derivation of personal income:					
Total earnings	12,885	14,128	15,381	9.6	10.7
Less: Personal contributions for social insurance	794	908	1,020	14.4	13.6
Net earnings	12,090	13,220	14,360	9.3	10.5
Plus: Dividends, interest, and rent	2,461	2,724	3,056	10.7	14.1
Plus: Transfer payments	2,294	2,456	2,617	7.1	7.2
Personal income	16,845	18,399	20,033	9.2	10.6

Source: U.S. Department of Commerce, Bureau of Economic Analysis, release dated January 1990.

Table 3-3
TOTAL AND PER CAPITA PERSONAL INCOME FOR THE UNITED STATES AND HAWAII: 1980 TO 1988

Year	Total personal income (millions of dollars)		Per capita personal income (dollars)		Hawaii per capita income as a percentage of U.S.
	United States	Hawaii	United States	Hawaii	
1980	2,254,076	10,279	9,919	10,617	107
1981	2,514,231	11,051	10,949	11,274	103
1982	2,663,432	11,732	11,480	11,760	102
1983	2,834,385	12,875	12,098	12,641	104
1984	3,101,163	13,628	13,114	13,157	100
1985	3,317,545	14,589	13,896	13,892	100
1986	3,519,211	15,608	14,596	14,675	101
1987	3,766,075	16,845	15,472	15,569	101
1988	4,052,992	18,399	16,489	16,753	102
	Percent change from previous year				
1980	11.1	13.8	9.8	11.7	1.7
1981	11.5	7.5	10.4	6.2	-3.8
1982	5.9	6.2	4.8	4.3	-0.5
1983	6.4	9.7	5.4	7.5	2.0
1984	9.4	5.8	8.4	4.1	-4.2
1985	7.0	7.1	6.0	5.6	-0.1
1986	6.1	7.0	5.0	5.6	0.6
1987	7.0	7.9	6.0	6.1	0.1
1988	7.6	9.2	6.6	7.6	1.0

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Electronic Data Distribution System, release August 1989.

Table 3-4
TOTAL AND PER CAPITA DISPOSABLE PERSONAL INCOME FOR THE UNITED STATES AND HAWAII: 1980 TO 1988

Year	Disposable personal income (millions of dollars)		Per capita disposable income (dollars)		Hawaii per capita income as a percentage of U.S.
	United States	Hawaii	United States	Hawaii	
1980	1,914,331	8,776	8,424	9,065	108
1981	2,121,830	9,418	9,240	9,608	104
1982	2,255,123	10,213	9,721	10,237	105
1983	2,424,880	11,100	10,350	10,898	105
1984	2,662,051	11,886	11,257	11,476	101
1985	2,832,081	12,606	11,863	12,004	102
1986	3,007,489	13,528	12,474	12,718	102
1987	3,195,698	14,393	13,128	13,303	101
1988	3,467,583	15,786	14,107	14,374	102
	Percent change from previous year				
1980	11.0	13.8	9.7	11.7	1.8
1981	10.8	7.3	9.7	6.0	-3.4
1982	6.3	8.4	5.2	6.5	1.3
1983	7.5	8.7	6.5	6.5	0.0
1984	9.8	7.1	8.8	5.3	-3.2
1985	6.4	6.1	5.4	4.6	-0.7
1986	6.2	7.3	5.2	5.9	0.8
1987	6.3	6.4	5.2	4.6	-1.4
1988	8.5	9.7	7.5	8.1	0.6

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Electronic Data Distribution System release, August 1989.

Table 3-5
CONSUMER PRICE INDEX, ALL URBAN CONSUMERS (CPI-U) FOR SELECTED ITEMS FOR HONOLULU: 1980 TO 1989

[1982-84 = 100]

Period	All items	Food & beverage	Housing 1/	Apparel and upkeep	Transportation	Medical care	Entertainment	Other
1980	83.0	84.2	83.2	89.8	86.6	73.1	78.2	73.3
1981	91.7	92.6	92.3	94.5	95.7	81.8	87.2	81.5
1982	97.2	96.9	98.0	98.4	99.0	91.6	95.7	92.0
1983	99.3	99.5	98.9	101.4	98.2	101.1	100.0	101.4
1984	103.5	103.6	103.1	100.2	102.9	107.3	104.3	106.6
1985	106.8	107.8	106.0	99.6	104.9	113.2	111.9	112.5
1986	109.4	110.0	108.4	99.8	105.2	122.3	113.2	119.6
1987	114.9	114.1	115.0	102.5	109.7	127.9	118.6	129.7
1988	121.7	120.3	123.0	106.8	116.1	132.5	122.9	137.1
1989	128.7	128.1	131.1	104.3	123.9	139.3	124.3	146.1
1988:								
1st half	120.1	118.9	121.1	105.7	114.2	130.3	123.1	135.0
2nd half	123.4	121.7	124.9	108.0	118.0	134.7	122.8	139.3
1989:								
1st half	126.4	125.6	128.1	106.1	121.8	136.0	124.0	142.7
2nd half	131.1	130.6	134.1	102.5	126.0	142.7	124.3	146.1
% increase:								
1980-81	10.5	10.0	10.9	5.2	10.5	11.9	11.5	11.2
1981-82	6.0	4.6	6.2	4.1	3.4	12.0	9.7	12.9
1982-83	2.2	2.7	0.9	3.0	-0.8	10.4	4.5	10.2
1983-84	4.2	4.1	4.2	-1.2	4.8	6.1	4.3	5.1
1984-85	3.2	4.1	2.8	-0.6	1.9	5.5	7.3	5.5
1985-86	2.4	2.0	2.3	0.2	0.3	8.0	1.2	6.3
1986-87	5.0	3.7	6.1	2.7	4.3	4.6	4.8	8.4
1987-88	5.9	5.4	7.0	4.2	5.8	3.6	3.6	5.7
1988-89	5.8	6.5	6.6	-2.3	6.7	5.1	1.1	6.6
1st half	5.2	5.6	5.8	0.4	6.7	4.4	0.7	5.7
2nd half	6.2	7.3	7.4	-5.1	6.8	5.9	1.5	7.3

1/ Change in calculation in 1983--housing costs measured in rental equivalence (what owners would have to pay if they rented their homes).

Source: U.S. Department of Labor, Bureau of Labor Statistics.

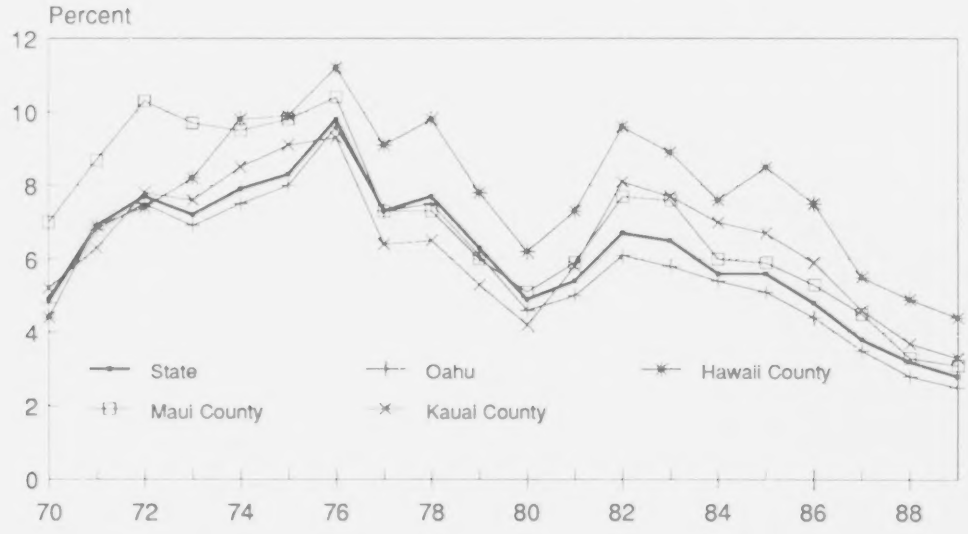
4. EMPLOYMENT

Hawaii's 2.8 percent unemployment rate for 1989 was the lowest annual rate since the current method of estimation was started in 1970. By county, Oahu continues to have the lowest rate at 2.5 percent while Hawaii County's 4.4 percent rate was the highest--still lower than the 5 percent rate for the nation.

The number of persons unemployed dipped below 15,000 in 1989, as employers competed in the tight labor market. Employees, however, benefited from the labor shortage with most starting wages well above the State's $3.85 minimum wage.

Preliminary job count estimates, from the State Department of Labor and Industrial Relations' survey of approximately 1,700 employers, indicate a moderate 3 percent increase from the previous year. However, provisional findings from the department's Employment Series 202, a more complete count of employers and employment, indicate a much higher rate of growth. From the six months of available data for 1989, total jobs are estimated to have jumped over 5 percent from 1988, considerably higher than the preliminary 3 percent rate. However, final estimates will not be available for several months.

Figure 4-1
UNEMPLOYMENT RATES FOR THE STATE AND COUNTIES: 1970 TO 1989



Source:DBED, Based on data from the State Dept of Labor and Industrial Relations

Table 4-1
CIVILIAN LABOR FORCE AND EMPLOYMENT, BY COUNTY: 1980 TO 1989

[Number of persons]

Subject and year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
Civilian labor force:					
1980	439,000	338,350	44,550	19,550	37,550
1981	451,000	345,700	46,550	20,100	39,800
1982	461,000	350,100	48,300	20,850	42,900
1983	472,000	357,100	48,400	21,650	44,850
1984	472,000	357,100	49,750	21,300	44,950
1985	479,000	359,600	50,700	22,050	46,950
1986	492,000	368,700	51,350	23,400	48,600
1987	513,000	382,300	53,700	25,000	52,000
1988	516,000	382,600	54,700	26,200	52,550
1989	522,600	385,450	57,450	26,900	52,800
1988: 1 Q	516,500	383,950	53,350	25,950	53,250
2 Q	516,200	383,750	53,700	26,100	52,650
3 Q	515,650	381,400	55,150	26,450	52,600
4 Q	515,700	381,200	56,500	26,350	51,650
1989: 1 Q	514,400	379,300	56,500	26,550	52,050
2 Q	521,100	384,200	57,250	26,800	52,850
3 Q	530,150	390,250	58,600	27,350	53,950
4 Q	524,650	388,050	57,350	26,850	52,400
Civilian employment:					
1980	418,000	322,800	40,850	18,700	35,650
1981	427,000	328,500	42,150	18,900	37,450
1982	430,000	328,600	42,700	19,150	39,600
1983	442,000	338,950	44,050	20,000	41,450
1984	445,000	337,950	44,900	19,800	42,250
1985	452,000	348,050	46,150	20,550	44,150
1986	468,000	352,850	47,500	22,000	46,050
1987	493,000	368,700	50,750	23,850	49,650
1988	500,000	372,000	51,950	25,250	50,800
1989	507,750	374,650	54,900	26,000	51,200
1988: 1 Q	502,200	374,300	51,250	25,100	51,600
2 Q	498,950	372,300	50,750	25,000	50,850
3 Q	498,950	370,550	52,150	25,400	50,850
4 Q	499,900	370,900	53,700	25,400	49,900
1989: 1 Q	496,800	367,900	53,350	25,400	50,150
2 Q	504,550	373,450	54,200	25,850	51,100
3 Q	518,750	382,650	56,600	26,750	52,800
4 Q	510,850	378,650	55,400	25,950	50,800

Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-2
CIVILIAN UNEMPLOYED AND UNEMPLOYMENT RATE, BY COUNTY: 1980 TO 1989

Subject and year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
Civilian unemployed (persons):					
1980	21,000	15,550	2,700	850	1,900
1981	24,000	17,150	3,300	1,150	2,350
1982	31,000	21,500	4,500	1,700	3,300
1983	30,000	20,600	4,300	1,650	3,400
1984	27,000	19,100	3,750	1,500	2,700
1985	27,000	18,450	4,250	1,500	2,800
1986	24,000	16,200	3,850	1,400	2,550
1987	20,000	13,600	2,950	1,150	2,300
1988	16,000	10,600	2,700	950	1,750
1989	14,850	9,800	2,550	900	1,650
1988: 1 Q	14,250	9,650	2,100	800	1,700
2 Q	17,250	11,450	2,950	1,100	1,800
3 Q	16,650	10,850	3,000	1,050	1,750
4 Q	15,800	10,300	2,800	900	1,750
1989: 1 Q	17,650	11,400	3,150	1,150	1,950
2 Q	16,550	10,750	3,050	900	1,800
3 Q	11,400	7,600	2,000	650	1,150
4 Q	13,800	9,400	1,950	850	1,600
Unemployment rate (percent):					
1980	4.9	4.6	6.2	4.2	5.1
1981	5.4	5.0	7.3	5.8	5.9
1982	6.7	6.1	9.6	8.1	7.7
1983	6.5	5.8	8.9	7.7	7.6
1984	5.6	5.4	7.6	7.0	6.0
1985	5.6	5.1	8.5	6.7	5.9
1986	4.8	4.4	7.5	5.9	5.3
1987	3.8	3.5	5.5	4.6	4.5
1988	3.2	2.8	4.9	3.7	3.3
1989	2.8	2.5	4.4	3.3	3.1
1988: 1 Q	2.8	2.5	4.0	3.2	3.1
2 Q	3.3	3.0	5.5	4.1	3.4
3 Q	3.2	2.9	5.4	3.9	3.3
4 Q	3.1	2.7	4.9	3.5	3.4
1989: 1 Q	3.4	3.0	5.6	4.3	3.7
2 Q	3.2	2.8	5.4	3.4	3.4
3 Q	2.2	1.9	3.4	2.3	2.2
4 Q	2.6	2.4	3.4	3.2	3.1

Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-3
TOTAL JOBS: 1980 TO 1989

Year	Total jobs 1/	Nonagriculture			Agriculture			Labor disputes
		Total	Wage & salary	Self-employed	Total	Wage & salary	Self-employed	
1980	448,150	432,400	404,100	28,300	15,400	10,800	4,600	500
1981	449,900	433,950	404,800	29,150	15,850	11,500	4,350	50
1982	446,050	430,700	399,400	31,300	15,250	11,300	4,000	100
1983	453,750	438,500	406,200	32,300	15,100	11,200	3,900	150
1984	461,000	446,100	412,650	33,450	14,450	10,800	3,650	450
1985	473,150	459,150	425,750	33,400	13,900	10,400	3,500	100
1986	486,850	473,300	438,550	34,750	13,350	10,150	3,200	200
1987 2/	504,950	490,700	459,950	30,700	14,220	10,550	3,700	50
1988	523,500	509,800	477,100	32,750	13,550	10,000	3,600	100
1989 (p)	539,000	525,750	493,200	32,550	13,250	9,750	3,500	-
1988: 1 Q	513,450	500,200	469,700	30,550	13,200	9,750	3,450	50
2 Q	524,700	511,500	477,100	34,400	13,150	9,700	3,450	50
3 Q	524,700	510,450	476,550	33,900	14,150	10,500	3,650	100
4 Q	531,000	517,100	484,950	32,150	13,750	9,950	3,750	150
1989: 1 Q	530,400	518,000	487,200	30,800	12,400	9,200	3,200	-
2 Q	538,700	525,050	492,100	32,950	13,650	10,100	3,600	-
3 Q	539,300	525,400	491,850	33,550	13,900	10,300	3,600	-
4 Q	547,650	534,550	501,650	32,900	13,100	9,400	3,700	50
	Percent change from the same period in previous year							
1980	3.2	3.4	2.6	16.2	1.1	0.5	2.2	-28.6
1981	0.3	0.4	0.2	3.0	2.9	8.4	-5.4	-90.0
1982	-0.9	-0.7	-1.3	7.4	-3.8	-2.2	-9.2	100.0
1983	1.7	1.8	1.7	3.2	-1.3	-0.9	-1.3	50.0
1984	1.6	1.7	1.6	3.6	-4.0	-3.6	-6.4	200.0
1985	2.6	2.9	3.2	-0.2	-3.8	-3.5	-4.4	-77.8
1986	2.9	3.1	3.0	4.0	-4.0	-2.4	-8.6	85.7
1987	(NC)	(NC)	4.9	(NC)	6.5	3.9	15.3	-75.0
1988	3.7	3.9	3.7	6.6	-4.7	-5.3	-2.7	69.2
1989	3.0	3.1	3.4	-0.6	-2.2	-2.4	-1.9	-90.9
1988: 1 Q	4.4	4.6	3.9	16.2	-1.2	-2.7	3.0	0.0
2 Q	4.1	4.4	3.9	11.7	-7.0	-7.3	-5.5	0.0
3 Q	3.3	3.6	4.0	-0.6	-8.1	-7.1	-11.0	75.0
4 Q	2.9	3.0	3.1	1.5	-1.7	-3.9	4.1	200.0
1989: 1 Q	3.3	3.6	3.7	0.8	-6.2	-5.7	-7.7	-
2 Q	2.7	2.7	3.1	-4.2	3.8	3.8	3.9	-
3 Q	2.8	2.9	3.2	-1.0	-1.9	-1.9	-1.8	-
4 Q	3.1	3.4	3.4	2.3	-4.6	-5.7	-1.8	-77.8

NC Not comparable.

1/ Total of wage and salary jobs and self-employed in agricultural and nonagricultural industries plus those jobs involved in labor disputes.

2/ Revision in methodology affecting non-agricultural self-employed from 1987. Data and subtotals not comparable to previous years.

Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-4
NUMBER OF JOBS, BY INDUSTRY: 1987 TO 1989

Series	1987	1988	1989(p)	Percent change from previous year		
				1987	1988	1989
Total jobs 1/	504,950	523,500	539,000	(NC)	3.7	3.0
Non-agricultural wage and salary jobs	459,950	477,100	493,200	4.9	3.7	3.4
Construction	21,200	23,050	26,800	13.8	8.8	16.2
Manufacturing	21,900	22,300	21,950	-0.6	1.8	-1.6
Durable goods	3,950	4,250	4,300	4.9	8.0	0.5
Nondurable goods	17,950	18,050	17,650	-1.8	0.6	-2.2
Food processing	9,950	10,300	10,050	-1.9	3.5	-2.6
Sugar processing	3,050	2,950	2,800	-8.0	-3.5	-5.8
Pineapple processing	2,050	2,050	1,750	3.6	0.2	-16.3
Other food processing	4,800	5,300	5,550	-0.1	9.9	4.5
Transportation, commun., utilities	36,850	38,000	39,850	7.7	3.2	4.8
Trade	123,750	127,600	130,000	4.9	3.1	1.9
Wholesale	20,400	20,550	21,050	4.2	0.8	2.5
Retail	103,400	107,050	108,950	5.0	3.6	1.8
Finance, insurance, real estate	33,700	34,750	35,750	1.7	3.1	2.9
Services	126,500	132,250	137,900	6.6	4.5	4.3
Hotels	31,250	34,500	37,100	6.8	10.4	7.6
Government	96,050	99,100	100,950	2.3	3.2	1.8
Federal	32,800	33,450	33,300	2.2	2.0	-0.3
State	49,900	51,850	53,550	2.6	3.9	3.3
Local	13,400	13,850	14,100	2.1	3.3	1.7
Agriculture (wage & salary)	10,550	10,000	9,750	3.9	-5.3	-2.4
Sugar	3,800	3,700	3,300	-4.7	-3.0	-10.7
Pineapple	1,900	1,750	1,850	-6.9	-8.8	5.3
Diversified agriculture	4,800	4,550	4,600	17.7	-5.3	1.4
Nonagric. self-employed 2/	30,700	32,750	32,550	(NC)	6.6	-0.6
Agricultural self-employed 2/	3,700	3,600	3,500	15.3	-2.7	-1.9
Labor disputes	50	100	-	-75.0	69.2	-90.9

p Preliminary.

NC Not comparable. Revision in methodology affecting non-agricultural self-employed from 1987. Data and subtotals not comparable to previous years.

1/ Total of nonagricultural and agricultural wage and salary, self-employed, and jobs involved in labor disputes.

2/ Self-employed includes unpaid family workers and domestics.

Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-5
NON-AGRICULTURAL WAGE AND SALARY JOBS, BY COUNTY: 1980 TO 1989

Year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
1980	404,100	333,050	28,450	15,150	27,500
1981	404,800	332,300	28,850	15,200	28,450
1982	399,400	325,700	28,700	15,150	29,900
1983	406,200	330,100	29,350	15,700	31,050
1984	412,650	334,400	30,400	15,700	32,150
1985	425,750	342,300	32,250	16,700	34,550
1986	438,550	351,450	33,150	17,900	36,050
1987	459,950	366,550	35,300	19,300	38,850
1988	477,100	377,850	37,200	21,150	40,900
1989 (p)	493,200	388,650	40,400	22,200	41,950
1988: 1 Q	469,700	372,450	35,850	20,600	40,800
2 Q	477,100	378,600	36,500	20,950	41,050
3 Q	476,550	377,000	37,300	21,300	40,900
4 Q	484,950	383,350	39,150	21,650	40,750
1989: 1 Q	487,200	383,900	39,750	21,950	41,600
2 Q	492,100	388,000	39,950	22,150	42,000
3 Q	491,850	386,900	40,600	22,300	42,100
4 Q	501,650	395,750	41,350	22,400	42,150
	Percent change from same period in previous year				
1980	2.6	2.2	2.9	6.1	4.3
1981	0.2	-0.2	1.4	0.6	3.5
1982	-1.3	-2.0	-0.5	-0.6	5.0
1983	1.7	1.4	2.3	3.9	4.0
1984	1.6	1.3	3.6	0.1	3.5
1985	3.2	2.4	6.0	6.1	7.4
1986	3.0	2.7	2.9	7.2	4.4
1987	4.9	4.3	6.4	7.9	7.8
1988	3.7	3.1	5.5	9.6	5.2
1989 (p)	3.4	2.9	8.6	5.0	2.7
1988: 1 Q	3.9	3.3	3.7	10.8	7.1
2 Q	3.9	3.3	3.8	10.5	6.8
3 Q	4.0	3.4	5.0	10.2	5.1
4 Q	3.1	2.4	9.3	7.0	1.9
1989: 1 Q	3.7	3.1	10.9	6.7	2.0
2 Q	3.1	2.5	9.5	5.6	2.3
3 Q	3.2	2.6	8.8	4.5	2.9
4 Q	3.4	3.2	5.5	3.3	3.5

p Preliminary.
Source: Hawaii State Department of Labor and Industrial Relations.

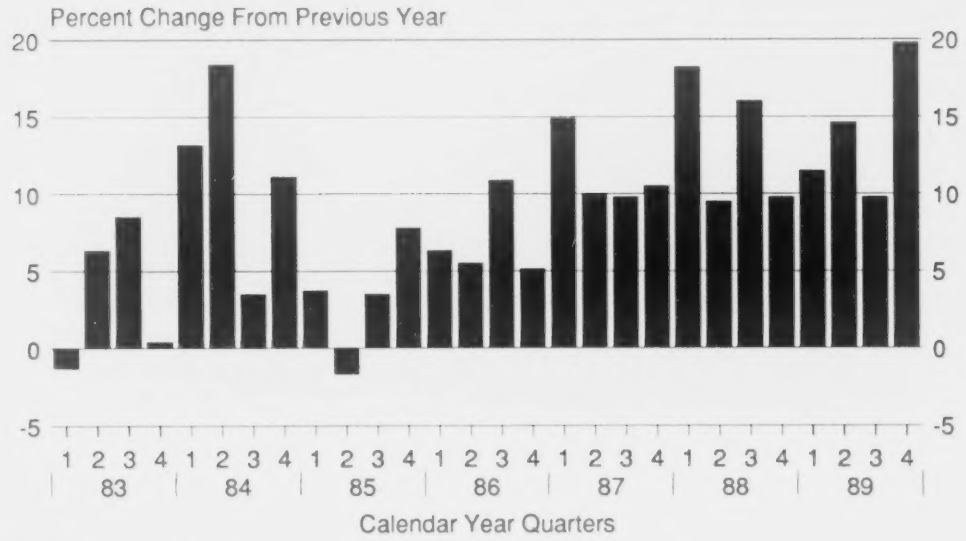
5. BUSINESS ACTIVITY

The State's robust economy is reflected by the increase in the number of domestic and foreign corporations formed last year. In fiscal year 1989, 3,791 domestic corporations were formed and 812 foreign corporations were registered by the State's Business Registration Division (table 5-3). A total of 34,587 domestic, 5,911 foreign corporations, and 10,414 partnerships are now registered with the State.

Hawaii's ranking among the 50 states in economic performance also improved in 1989. According to a business climate index (table 5-4), the State's ranking rose from twelfth place to second in business performance.

State tax collections and general fund revenues show continued double-digit percent gains in 1989. Net individual income tax and net corporate income tax increased by 17.8 percent and 15.2 percent respectively. General excise and use taxes, which include taxes paid by industries such as construction, trade, and services, rose by 13.5 percent to over 1 billion dollars in 1989.

Figure 5-1
GROWTH IN TAXABLE BUSINESS TRANSACTIONS, QUARTERLY: 1983 TO 1989



SOURCE: Based on data from Dept of Taxation. Data for 1989 4th quarter exclude December data.

Table 5-1
VALUE OF BUSINESS TRANSACTIONS SUBJECT TO STATE EXCISE AND USE TAX: 1982 TO 1989

[Millions of dollars]

Year	Total taxable transactions	Selected industry transactions				
		Retailing	Services	Hotel rental	Diversified agriculture	Manufacturing 1/
1982	20,722.1	7,043.6	1,976.2	875.5	176.8	544.3
1983	21,416.8	7,458.8	2,128.5	858.2	221.6	502.3
1984	23,879.9	8,182.7	2,396.1	1,008.6	257.6	530.1
1985	24,630.3	8,605.2	2,529.7	1,153.4	251.6	538.3
1986	26,335.2	9,206.7	2,786.1	1,227.2	258.8	565.4
1987	29,232.3	10,010.4	3,057.4	1,434.8	264.1	588.3
1987 2/	28,072.4	9,356.7	2,856.2	1,346.5	264.1	588.3
1988	31,833.9	10,501.7	3,337.6	1,429.3	308.2	606.7
1 Q	8,349.5	2,802.6	842.5	421.5	85.2	156.0
2 Q	7,771.2	2,594.7	838.7	332.2	76.3	160.7
3 Q	8,134.6	2,694.6	825.3	358.8	71.3	145.7
4 Q	7,578.6	2,409.8	831.0	316.7	75.4	144.2
1989 (Jan-Nov)	33,485.5	10,852.1	3,449.0	1,393.7	296.1	609.8
1 Q	9,311.7	3,098.4	957.3	418.1	89.5	183.1
2 Q	8,909.5	2,851.3	934.3	357.0	79.6	161.1
3 Q	8,932.5	2,948.5	907.7	376.0	72.0	159.7
Oct-Nov	6,331.9	1,953.8	649.7	242.7	55.1	107.0
	Percent change from same period in previous year					
1982	3.4	5.3	10.3	15.3	2.0	-11.6
1983	-0.9	5.9	7.7	-2.0	25.3	-7.7
1984	11.5	9.7	12.6	17.5	16.2	5.5
1985	3.1	5.2	5.6	14.4	-2.4	1.5
1986	6.9	7.0	10.1	6.4	2.9	5.0
1987	11.0	8.7	9.7	16.9	2.1	4.0
1988	13.4	12.2	16.9	6.1	16.7	3.1
1 Q	18.2	18.6	17.2	23.7	28.1	2.0
2 Q	9.5	10.9	14.0	-12.5	3.5	6.1
3 Q	16.0	13.1	14.4	12.3	15.9	-1.0
4 Q	9.8	6.1	22.0	3.1	20.9	5.5
1989 (Jan-Nov)	13.4	11.3	11.7	5.7	6.5	4.1
1 Q	11.5	10.6	13.6	-0.8	5.0	17.4
2 Q	14.6	9.9	11.4	7.5	4.3	0.2
3 Q	9.8	9.4	10.0	4.8	1.0	8.9
Oct-Nov	19.8	18.1	11.8	18.2	22.1	-13.0

Note: This series derived by lagging reported excise tax base data one month to adjust for reporting delay.

1/ Excludes sugar processing and pineapple canning. Manufacturing goods shipped out of State have been exempted from the general excise tax by Act 239, SLH 1987, effective January 1, 1989.

2/ The Department of Taxation has revised the method of reporting the taxable base by industry. Before 1988, nonspecified industry transactions were allocated to five major tax activities--retailing, services, contracting, hotel rentals, and all other rentals. Data for 1987 show results of both methods. Percentages are based on comparable series.

Source: Hawaii State Department of Taxation.

Table 5-2
COLLECTIONS OF SELECTED STATE TAXES AND GENERAL FUND TAX REVENUES: 1982 TO 1989

[Thousands of dollars]

Year	General excise and use tax 1/	Net individual income tax 2/	Net corporate income tax 3/	Tax revenues distributed to State General Fund 4/
1982	574,590	296,757	34,785	1,011,465
1983	615,536	358,072	27,960	1,109,876
1984	669,805	413,885	39,681	1,240,352
1985	707,381	446,358	44,075	1,325,791
1986	777,961	490,185	46,216	1,486,484
1987	869,039	574,729	67,272	1,731,226
1988	965,953	680,789	63,094	1,949,103
1989	1,096,476	801,999	72,677	2,157,005
1 Q	270,801	205,080	23,520	554,240
2 Q	270,683	211,019	24,710	593,091
3 Q 4/	272,645	176,719	18,756	441,009
4 Q	282,347	209,182	5,690	568,663
	Percent change from same period in previous year			
1982	-0.1	-15.1	-20.2	-5.5
1983	7.1	20.7	-19.6	9.7
1984	8.8	15.6	41.9	11.8
1985	5.6	7.8	11.1	6.9
1986	10.0	9.8	4.9	12.1
1987	11.7	17.2	45.6	16.5
1988	11.2	18.5	-6.2	12.6
1989	13.5	17.8	15.2	10.7
1 Q	12.6	28.7	29.7	18.9
2 Q	11.9	24.1	18.5	15.3
3 Q 4/	13.0	4.6	15.6	-8.8
4 Q	16.6	14.6	-27.8	17.3

Note: This series represents data as reported by the Department of Taxation, without adjustment.

1/ Manufactured goods shipped out of State have been exempted from the general excise tax by Act 239, SLH 1987, effective January 1, 1988.

2/ Declaration of estimated taxes, plus payments with returns, plus withholding tax on wages, less refunds.

3/ Declaration of estimated taxes, plus payments with returns, less refunds.

4/ Excludes non-tax sources. The State General Fund for the 3rd quarter declined due to a new $90 million allocation to the State Education Special Fund. Act 368 adopted by the 1989 State Legislature requires allocation of $90 million annually. Without this special allocation, general fund would have increased by 9.8 percent.

Source: Hawaii State Department of Taxation.

Table 5-3.-- REGISTERED CORPORATIONS AND PARTNERSHIPS: 1986 TO 1989

[Excludes eleemosynary corporations]

Subject	1986	1987	1988	1989
Domestic (Hawaii) corporations:				
Formed 1/	3,010	3,191	3,459	3,791
Dissolved or merged 2/	2,183	2,221	239	583
On record, June 30	27,189	28,159	31,379	34,587
Foreign (non-Hawaii) corporations:				
Qualified 1/	596	626	692	812
Withdrawn, merged, or cancelled 2/	371	351	185	228
On record, June 30	4,545	4,820	5,327	5,911
Partnerships:				
Registered 1/	1,557	1,392	1,367	1,409
Dissolved or cancelled 2/	1,505	1,297	645	688
On record, June 30	8,876	8,971	9,693	10,414

1/ Annual totals for fiscal years ended June 30.

2/ Annual totals for fiscal years ended June 30. Annual fluctuations may partly reflect the sporadic purging of defunct firms from the registration files.

Source: Hawaii State Department of Commerce and Consumer Affairs, Business Registration Division, September 18, 1989.

Table 5-4.-- BUSINESS CLIMATE INDEXES: 1988 AND 1989

Index	Number of subindexes		Rank 1/		Grade	
	1988	1989	1988	1989	1988	1989
Performance	3	3	12	2	B	A
Business vitality	3	3	35	38	C	D
Capacity	4	4	15	13	B	B
Policy	7	6	39	24	D	C

1/ Among the 50 States.

Source: The Corporation for Enterprise Development, *Making the Grade: The 1988 Development Report Card for the States* (April 1988) and *The 1989 Development Report Card for the States* (March 1989).

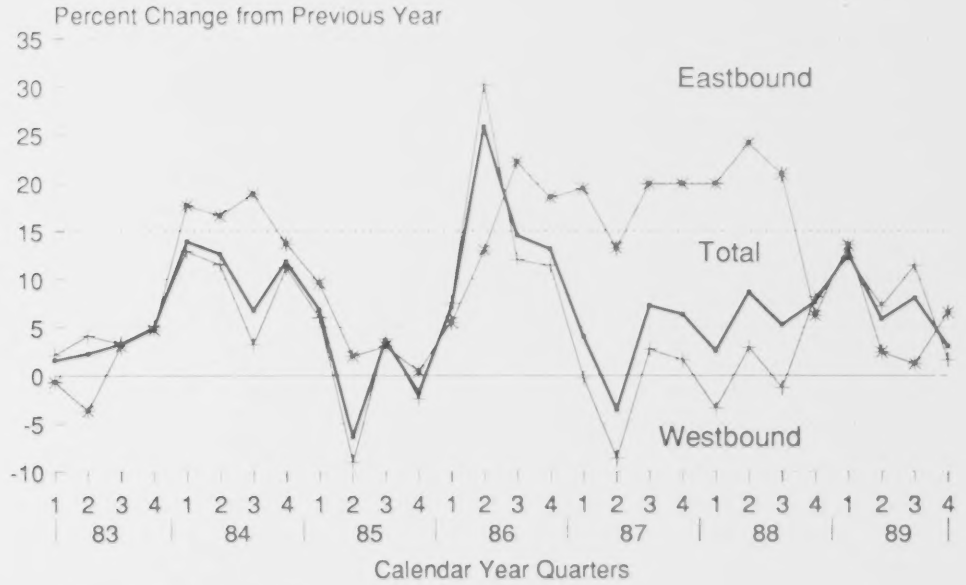
6. THE VISITOR INDUSTRY

Preliminary counts of visitors for 1989 indicate totals well above the 3 to 5 percent increases projected by HVB at the beginning of the year. An estimated 6.6 million tourists visited the State in 1989, a gain of 7.3 percent over 1988. The jump was due to the resurgence of the westbound market, consisting of arrivals from the mainland, Canada, and Europe, which increased 8.1 percent to 4.6 million. The mainland count for 1989 was 3.9 million, up 9.6 percent, with 1.3 million coming from California, an increase of 13.6 percent.

Hawaii County had nearly 200,000 more westbound visitors in 1989, a 23 percent rise compared with the previous two years of declining westbound visitors. Similar trends are indicated for Oahu and Maui, with only Kauai island showing consistent gains in westbound visitors since 1983.

Trends in hotel occupancy and room rates by Pannell Kerr Forster & Company reveal improvements in occupancy rates for all islands except for Maui which declined 4.2 percentage points. Average room rates for Maui also showed a slight decline, although on the average still higher than all other areas.

Figure 6-1
GROWTH IN VISITOR ARRIVALS, QUARTERLY: 1983 TO 1989



SOURCE: Based on data from the HVB.

Table 6-1
VISITOR ARRIVALS AND AVERAGE DAILY VISITOR CENSUS: 1980 TO 1989

Year 1/	Visitors staying overnight or longer			Average daily visitor census	
	Total	Westbound 2/	Eastbound 3/	Westbound 2/	All
1980	3,934,504	3,046,132	888,372	86,788	96,497
1981	3,934,623	2,974,791	959,832	85,449	95,968
1982	4,242,925	3,278,525	964,400	94,740	105,310
1983	4,368,105	3,396,115	971,990	97,390	108,040
1984	4,855,580	3,721,380	1,134,200	106,260	118,660
1985	4,884,110	3,708,610	1,175,500	103,820	116,700
1986	5,606,980	4,256,390	1,350,590	118,110	132,900
1987	5,799,830	4,204,010	1,595,820	116,780	134,300
1988	6,142,420	4,264,730	1,877,690	115,760	141,410
1989 (p)	6,591,620	4,608,660	1,982,960	127,060	160,750
1988: 1 Q	1,484,910	1,047,440	437,470	120,950	145,300
2 Q	1,488,200	1,028,780	459,420	109,150	134,700
3 Q	1,635,570	1,088,110	547,460	113,300	143,700
4 Q	1,533,740	1,100,400	433,340	119,560	143,600
1989: 1 Q (p)	1,672,190	1,175,500	496,690	136,870	170,000
2 Q (p)	1,573,890	1,103,320	470,570	118,800	150,200
3 Q (p)	1,765,670	1,211,660	554,010	127,630	164,500
4 Q (p)	1,579,870	1,118,180	461,690	124,940	155,700
	Percent change from corresponding period in previous year				
1980	-0.7	-3.0	8.2	-3.2	-2.2
1981	0.0	-2.3	8.0	-1.5	-0.5
1982	7.8	10.2	0.5	10.9	9.7
1983	3.0	3.6	0.8	2.8	2.6
1984	11.2	9.6	16.7	9.1	9.8
1985	0.6	-0.3	3.6	-2.3	-1.7
1986	14.8	14.8	14.9	13.9	13.9
1987	3.4	-1.2	18.2	-1.1	1.1
1988	5.9	1.4	17.7	-0.9	5.3
1989 (p)	7.3	8.1	5.6	9.8	13.7
1988: 1 Q	2.5	-3.4	19.9	-5.4	0.8
2 Q	8.6	2.9	24.1	1.6	8.8
3 Q	5.2	-1.3	20.9	-4.2	4.1
4 Q	7.6	8.1	6.2	5.2	9.3
1989: 1 Q (p)	12.6	12.2	13.5	13.1	17.0
2 Q (p)	5.8	7.2	2.4	8.8	11.5
3 Q (p)	8.0	11.4	1.2	12.7	14.5
4 Q (p)	3.0	1.6	6.5	4.5	8.4

p Preliminary.
1/ Beginning in 1984, sample size reduced from 20 to 10 percent and numbers rounded to the nearest 10.
2/ Arriving from the Mainland United States or Canada.
3/ Arriving from the Orient and Pacific areas.
Source: Hawaii Visitors Bureau.

Table 6-2
WESTBOUND VISITORS, BY COUNTY: 1981 TO 1989

Year 1/	City and County of Honolulu	Hawaii County	Maui County	Kauai County
1981	2,398,477	672,683	1,389,892	757,811
1982	2,589,190	678,170	1,550,080	733,295
1983	2,591,575	712,380	1,644,605	691,940
1984	2,901,320	760,940	1,854,690	814,590
1985	2,828,640	697,380	1,831,110	832,580
1986	3,146,030	786,930	2,003,870	1,014,650
1987	3,078,500	782,550	1,908,780	1,032,840
1988	3,013,860	782,360	1,884,050	1,043,710
1989 (p)	3,134,000	959,890	2,036,060	1,177,260
1988: 1 Q	717,820	200,080	474,630	255,980
2 Q	733,650	175,400	464,130	254,290
3 Q	797,210	186,080	477,790	269,420
4 Q	765,180	220,800	467,500	264,020
1989: 1 Q (p)	773,360	242,790	525,680	287,250
2 Q (p)	746,540	219,490	505,020	282,450
3 Q (p)	849,960	264,230	527,990	348,350
4 Q (p)	764,140	233,380	477,370	259,210
	Percent change from corresponding period in previous year			
1982	8.0	0.8	11.5	-3.2
1983	0.1	5.0	6.1	-5.6
1984	12.0	6.8	12.8	17.7
1985	-2.5	-8.4	-1.3	2.2
1986	11.2	12.8	9.4	21.9
1987	-2.1	-0.6	-4.7	1.8
1988	-2.1	-0.0	-1.3	1.1
1989 (p)	4.0	22.7	8.1	12.8
1988: 1 Q	-7.5	-12.2	-4.8	-2.6
2 Q	-0.7	-3.2	3.0	2.9
3 Q	-3.5	-1.1	-4.4	-3.3
4 Q	3.8	19.3	1.7	8.1
1989: 1 Q (p)	7.7	21.3	10.8	12.2
2 Q (p)	1.8	25.1	8.8	11.1
3 Q (p)	6.6	42.0	10.5	29.3
4 Q (p)	-0.1	5.7	2.1	-1.8

p Preliminary.
1/ Beginning in 1984, sample size changed from 20 to 10 percent
Source: Hawaii Visitors Bureau.

Table 6-3
AVERAGE DAILY HOTEL ROOM RATES, BY ISLANDS: 1980 TO 1989

[Dollars]

Year	State	Oahu	Hawaii	Maui	Kauai	Molokai
1980	47.37	42.70	46.40	61.34	55.16	(NA)
1981	49.87	43.16	47.16	73.44	56.06	(NA)
1982	51.78	44.80	47.37	75.02	58.48	(NA)
1983	55.58	47.62	50.49	81.60	59.75	(NA)
1984	59.25	49.45	57.17	88.89	65.05	(NA)
1985	65.66	57.00	65.35	96.75	69.51	(NA)
1986	72.67	61.99	73.88	115.33	71.56	56.73
1987	80.09	69.04	82.21	127.05	81.65	64.26
1988	87.25	75.16	87.28	133.70	89.44	59.06
1989	95.83	84.48	121.27	133.65	92.77	66.38
	Percent change from previous year					
1980	6.7	3.1	12.0	7.3	15.5	(NA)
1981	5.2	1.1	1.6	19.7	1.6	(NA)
1982	3.8	3.8	0.4	2.2	4.3	(NA)
1983	7.4	6.3	6.6	8.8	2.2	(NA)
1984	6.6	3.8	13.2	8.9	8.9	(NA)
1985	10.8	15.3	14.3	8.8	6.9	(NA)
1986	11.5	9.0	15.1	17.5	8.4	(NA)
1987	10.2	11.4	11.3	10.2	14.1	13.3
1988	8.9	8.9	6.2	5.2	9.5	-8.1
1989	9.8	12.4	38.9	-0.0	3.7	12.4

NA Not available.
Source: Pannell Kerr Forster & Company, *Trends in the Hotel Industry, Hawaii.*

Table 6-4
HOTEL OCCUPANCY RATES BY AREA: 1986 TO 1989

[Percent; survey excludes some large hotel chains]

Date	State	Oahu	Hawaii	Maui Island	Kauai	Molokai
1986	81.2	85.2	62.2	82.7	76.7	50.3
1987	81.1	86.8	60.8	76.2	74.2	45.4
1988	78.5	85.4	56.4	73.4	66.9	45.3
1989	79.0	86.4	60.8	69.2	71.3	45.4
1988:						
January	76.7	84.9	58.1	67.2	58.4	50.1
February	86.5	92.0	70.8	81.9	74.1	58.7
March	82.4	87.6	59.3	82.0	72.0	51.3
April	74.0	78.2	54.5	76.7	63.7	38.6
May	73.3	79.5	46.2	70.7	67.5	40.5
June	77.7	86.9	48.2	70.5	62.8	34.4
July	81.2	90.2	55.0	72.2	66.9	40.1
August	86.7	93.8	64.2	82.0	74.4	43.8
September	76.1	85.2	47.5	65.8	67.3	40.4
October	80.4	85.7	59.6	76.3	76.1	50.2
November	74.5	80.5	55.8	69.4	64.7	52.5
December	70.5	78.3	55.2	61.8	53.1	41.0
1989:						
January	82.8	92.6	61.2	68.8	66.4	56.1
February	90.0	95.2	72.2	85.1	83.8	61.8
March	85.0	91.2	64.0	79.8	75.3	51.3
April	74.1	77.6	64.5	72.1	69.1	44.5
May	70.9	76.9	55.3	64.0	65.1	42.8
June	76.8	87.6	52.5	60.4	67.8	34.5
July	80.9	88.8	63.8	69.5	73.8	38.4
August	86.6	94.2	67.6	74.2	84.1	44.8
September	75.5	85.1	51.0	60.6	67.4	42.3
October	75.6	81.0	59.6	67.7	73.9	44.3
November	77.7	84.1	60.6	69.2	70.5	46.2
December	74.0	83.1	58.0	60.2	58.1	38.9

Source: Pannell Kerr Forster & Company, *Trends in the Hotel Industry, Hawaii.*

Table 6-5
VISITOR ACCOMMODATIONS IN HAWAII, BY TYPE: 1977 TO 1989

[As of February]

Year and island	Properties			Units		
	Total	Hotels 1/	Condominiums 2/	Total	Hotels 1/	Condominiums 2/
1977	335	(NA)	(NA)	44,986	39,901	5,085
1978	353	(NA)	(NA)	47,070	40,001	7,069
1979	381	(NA)	(NA)	49,832	41,299	8,533
1980	387	(NA)	(NA)	54,246	42,609	11,637
1981	412	214	198	56,769	42,575	14,194
1982	417	208	209	57,968	43,568	14,400
1983	426	218	208	58,765	45,352	13,413
1984	443	209	234	62,448	44,846	17,602
1985	481	207	274	65,919	44,115	21,804
1986	523	201	322	66,308	43,309	22,999
1987	510	196	314	65,318	43,422	21,896
1988	481	203	278	69,012	47,892	21,120
1989	455	194	261	68,189	48,970	19,219
ISLANDS: 1989						
Oahu	159	103	56	36,739	30,808	5,931
Waikiki 3/	131	83	48	32,743	27,549	5,194
Rest of Oahu	28	20	8	3,996	3,259	737
Other islands	296	91	205	31,450	18,162	13,288
Hawaii	72	30	42	8,171	6,004	2,167
Kauai	73	27	46	7,251	4,319	2,932
Maui	143	31	112	15,444	7,503	7,941
Molokai	7	2	5	574	326	248
Lanai	1	1	-	10	10	-

NA Not available.
1/ Hotels, apartment hotels, motels, and cottages.
2/ Condominium accommodations in rental pools for transient use.
3/ Includes Diamond Head and Kahala but not areas ewa and mauka (west and north) of the Ala Wai Canal.
Source: Hawaii Visitors Bureau, *Visitor Plant Inventory*, 1977 to 1989.

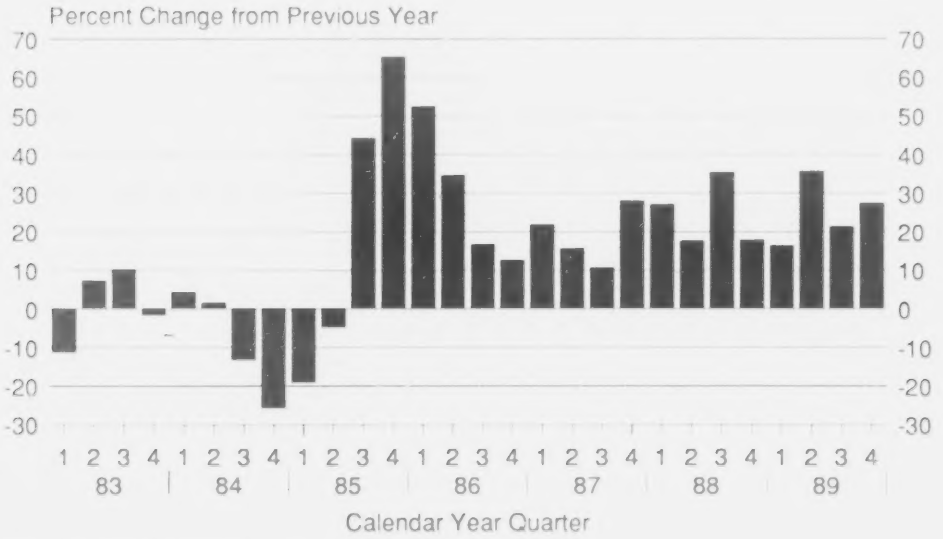
7. CONSTRUCTION

One of the major contributors to Hawaii's continued strong economic growth has been the construction industry. When final figures are tabulated for 1989, the value of construction completed will exceed $3 billion. For the last 5 years, construction value has increased an average of 20 percent annually. The impact is also evident in employment (table 4-4) and income (table 3-2), which showed substantial gains.

Continued increases in private building authorizations and government contracts awarded in 1989 indicate that the industry will still be a major force in 1990. Permits for nearly 10,000 residential units were authorized last year, a majority for single-family units.

Construction activity is shifting away from Kauai and Maui, where authorizations doubled in 1988, to the other counties. In 1989, large resort developments on the Big Island and commercial buildings on Oahu increased authorizations substantially.

Figure 7-1
GROWTH IN CONSTRUCTION EXPENDITURES, QUARTERLY: 1983 TO 1989



SOURCE: Based on data from the Dept. of Taxation. Data for 1989 4th quarter excludes December data.

Table 7-1
ESTIMATED VALUE OF COMPLETED CONSTRUCTION, NEW PRIVATE BUILDING AUTHORIZATIONS, AND GOVERNMENT CONTRACTS AWARDED: 1985 TO 1989

[Millions of dollars]

Year	Value of construction completed 1/	Private building authorizations				Government contracts awarded
		Total private authorization	Residential	Commercial and industrial 2/	Additions and alterations	
1985	1,429.6	889.0	500.1	208.8	180.1	248.5
1986	1,810.0	1,024.1	455.5	266.3	302.3	425.1
1987	2,145.5	1,161.9	507.0	344.4	310.5	372.2
1988	2,529.0	1,540.3	686.0	538.9	315.4	654.3
1989 3/	2,934.4	1,881.3	909.7	561.7	409.9	808.7
1988: 1 Q	590.6	317.4	135.1	112.2	70.1	124.3
2 Q	588.7	357.7	207.7	86.5	63.6	110.4
3 Q	698.1	334.1	183.1	66.4	84.6	207.1
4 Q	651.5	531.1	160.2	273.8	97.2	212.5
1989: 1 Q	687.2	416.9	169.0	150.9	97.1	249.5
2 Q	798.0	542.1	329.5	123.1	89.4	106.4
3 Q	846.5	536.2	240.6	161.0	134.6	154.6
4 Q 3/	602.7	386.1	170.6	126.7	88.8	298.2
	Percent change from corresponding period in previous year					
1985	16.5	52.9	52.6	100.8	20.2	-39.6
1986	26.6	15.7	-10.6	32.7	68.7	71.1
1987	18.5	13.5	11.3	29.3	2.7	-12.4
1988	26.0	32.6	35.3	56.5	1.6	75.8
1989 3/	24.8	22.1	32.6	4.2	30.0	23.6
1988: 1 Q	27.0	27.6	10.1	54.3	31.3	27.9
2 Q	17.5	10.0	54.2	6.9	-42.0	22.1
3 Q	35.3	24.3	53.9	-1.9	3.3	65.5
4 Q	17.7	66.3	22.7	122.4	48.1	257.1
1989: 1 Q	16.3	31.3	25.1	34.5	38.5	100.7
2 Q	35.6	51.6	58.6	42.3	40.6	-3.6
3 Q	21.3	60.5	31.4	142.5	59.1	-25.4
4 Q	27.4	-27.3	6.5	-53.7	-8.6	40.3

1/ Value of construction subject to State excise tax, adjusted to reflect reporting delay of about one month.

2/ Includes hotels.

3/ Excludes December data for value of construction completed. Percent computations based on comparable periods and coverage.

Source: Hawaii State Department of Taxation; County building departments; Trade Publishing Company, *Building Industry Digest: BID Service Weekly.*

Table 7-2
ESTIMATED VALUE OF PRIVATE BUILDING CONSTRUCTION AUTHORIZATIONS, BY COUNTY: 1980 TO 1989

[Millions of dollars]

Year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
1980	1,219.2	686.3	146.0	133.3	253.7
1981	802.0	454.1	136.5	67.7	143.7
1982	683.1	473.0	75.2	44.2	90.7
1983	685.2	366.8	86.7	140.5	91.3
1984	581.5	378.3	90.3	53.0	59.8
1985	889.0	524.8	121.3	63.9	178.9
1986	1,024.1	545.3	231.5	93.2	154.1
1987	1,161.9	749.5	145.2	103.5	163.8
1988	1,540.3	743.1	175.0	213.7	408.5
1989	1,881.3	1,047.7	338.1	178.7	316.8
1988: 1 Q	317.4	154.1	36.8	31.2	95.2
2 Q	357.7	216.6	40.4	35.0	65.6
3 Q	334.1	193.1	53.4	26.1	61.6
4 Q	531.1	179.2	44.5	121.4	186.0
1989: 1 Q	416.9	224.9	104.1	34.2	53.7
2 Q	542.1	331.5	72.9	33.5	104.3
3 Q	536.2	273.8	92.4	68.2	101.8
4 Q	386.1	217.6	68.6	42.8	57.0
	Percent change from corresponding period in previous year				
1980	39.4	36.9	30.1	17.1	72.0
1981	-34.2	-33.8	-6.5	-49.2	-43.4
1982	-14.8	4.2	-44.9	-34.7	-35.0
1983	0.3	-22.4	15.3	217.5	0.6
1984	-15.1	3.1	4.3	-62.3	-34.4
1985	52.9	38.7	34.3	20.5	199.0
1986	15.2	3.9	90.8	45.9	-13.9
1987	13.5	37.5	-37.3	11.0	6.3
1988	32.6	-0.9	20.5	106.5	149.4
1989	22.1	41.0	93.2	-16.4	-22.4
1988: 1 Q	27.6	-1.8	32.9	5.4	174.4
2 Q	10.0	-2.0	16.4	54.2	40.2
3 Q	24.3	26.0	39.4	-18.4	36.6
4 Q	66.3	-17.9	-0.2	532.3	400.0
1989: 1 Q	31.3	45.9	182.9	9.6	-43.6
2 Q	51.6	53.0	80.4	-4.3	59.0
3 Q	60.5	41.8	73.0	161.3	65.3
4 Q	-27.3	21.4	54.2	-64.7	-69.4

Source: County building departments.

Table 7-3
ESTIMATED VALUE OF GOVERNMENT CONSTRUCTION CONTRACTS AWARDED IN HAWAII, BY AWARDING AGENCY: 1980 TO 1989

[Millions of dollars]

Year	Total	Federal	State	County
1980	230.6	66.5	120.0	44.1
1981	427.5	176.1	180.5	70.9
1982	392.7	139.6	182.0	71.2
1983	277.9	84.7	126.8	66.4
1984	411.8	130.0	196.7	85.1
1985	248.5	74.8	93.8	79.9
1986	425.1	101.9	205.4	117.8
1987	372.2	107.9	174.2	90.1
1988	654.3	170.5	351.5	132.3
1989	808.7	135.1	467.4	206.2
1988: 1 Q	124.3	36.1	51.7	36.5
2 Q	110.4	12.6	90.4	7.4
3 Q	207.1	29.0	156.6	21.5
4 Q	212.5	92.8	52.8	66.9
1989: 1 Q	249.5	36.2	131.6	81.7
2 Q	106.4	13.4	67.2	25.8
3 Q	154.6	24.4	76.6	53.6
4 Q	298.2	61.1	192.0	45.1
	Percent change from corresponding period in previous year			
1980	-40.7	-37.1	-45.7	-28.8
1981	85.4	164.8	50.5	60.6
1982	-8.1	-20.7	0.8	0.4
1983	-29.3	-39.3	-30.3	-6.7
1984	48.2	53.4	55.1	28.2
1985	-39.6	-42.4	-52.3	-6.2
1986	71.1	36.2	119.1	47.4
1987	-12.4	5.9	-15.2	-49.3
1988	75.8	58.0	101.8	46.8
1989	23.6	-20.8	33.0	55.9
1988: 1 Q	27.9	97.3	-0.4	35.2
2 Q	22.1	1.6	129.4	-80.8
3 Q	65.5	-48.9	196.6	37.8
4 Q	257.1	354.9	75.4	651.7
1989: 1 Q	100.7	0.3	154.5	123.8
2 Q	-3.6	6.3	-25.7	248.6
3 Q	-25.4	-15.9	-51.1	149.3
4 Q	40.3	-34.1	263.6	-32.6

Source: Trade Publishing Co., *Building Industry Digest: BID Service Weekly*, and First Hawaiian Bank, Research Division.

Table 7-4
NUMBER OF SINGLE-FAMILY AND MULTI-FAMILY HOUSING UNITS AUTHORIZED BY COUNTY: 1980 TO 1989

Year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
Single-family and duplex units:					
1980	4,058	1,645	1,204	401	808
1981	2,649	728	1,048	409	464
1982	2,285	725	800	230	530
1983	3,417	1,627	938	291	561
1984	4,442	2,513	928	361	640
1985	4,951	2,436	1,046	453	1,016
1986	4,700	2,173	1,144	438	945
1987	6,066	2,870	1,442	599	1,155
1988	6,191	2,158	1,674	702	1,657
1989	6,846	2,105	2,690	881	1,170
1988: 1 Q	1,323	359	352	202	410
2 Q	1,767	722	403	188	454
3 Q	1,987	748	515	174	550
4 Q	1,114	329	404	138	243
1989: 1 Q	1,474	557	483	141	293
2 Q	1,620	670	512	171	267
3 Q	1,993	654	810	253	276
4 Q	1,759	224	885	316	334
Multi-family units:					
1980	6,603	3,297	727	766	1,813
1981	3,142	1,873	270	64	935
1982	4,594	4,109	245	118	122
1983	1,341	1,220	38	73	10
1984	1,021	829	153	35	4
1985	2,450	1,807	128	84	431
1986	2,479	1,986	21	-	472
1987	1,459	785	138	-	536
1988	2,593	1,168	446	21	958
1989	2,939	1,762	363	30	784
1988: 1 Q	428	162	222	-	44
2 Q	702	449	-	-	253
3 Q	528	108	224	-	196
4 Q	935	449	-	21	465
1989: 1 Q	309	216	87	6	-
2 Q	1,501	934	21	24	522
3 Q	664	308	204	-	152
4 Q	465	304	51	-	110

Source: County building departments.

Table 7-5
HONOLULU CONSTRUCTION COST INDEXES: 1983 TO 1989

[1982=100]

Year	Single-family residence			High-rise building		
	All components	Material prices	Labor 1/	All components	Material prices	Labor 1/
1983	109.5	111.3	107.3	106.9	107.4	106.7
1984	114.3	113.1	115.8	110.9	108.0	114.2
1985	117.4	115.2	120.1	113.5	108.7	118.2
1986	121.5	119.1	124.4	116.8	110.8	122.4
1987	125.7	123.7	128.2	120.7	114.9	125.8
1988	132.8	133.2	132.2	126.1	121.6	129.9
1989	138.5	137.2	140.3	133.2	126.7	138.8
1988: 1 Q	132.8	134.2	131.0	126.3	124.3	127.9
2 Q	130.8	129.9	132.0	124.3	117.8	129.8
3 Q	132.7	132.6	132.8	125.7	119.7	130.9
4 Q	134.8	136.2	133.0	128.1	124.8	131.0
1989: 1 Q	137.1	136.0	138.6	131.4	125.3	136.5
2 Q	138.6	138.3	139.0	132.8	127.4	137.4
3 Q	138.3	136.6	140.5	132.9	125.8	139.1
4 Q	140.1	137.8	143.1	135.7	128.4	142.0
	Percent change from corresponding period in previous year					
1983	9.5	11.3	7.3	6.9	7.4	6.9
1984	4.3	1.6	7.9	3.8	0.6	7.0
1985	2.7	1.9	3.7	2.4	0.6	3.5
1986	3.5	3.4	3.6	2.9	1.9	3.6
1987	3.5	3.8	3.0	3.4	3.7	2.8
1988	5.6	7.7	3.2	4.4	5.9	3.4
1989	4.3	3.0	6.1	5.6	4.2	6.9
1988: 1 Q	7.2	11.2	2.4	5.4	10.1	1.8
2 Q	5.0	6.8	2.9	2.9	2.4	3.2
3 Q	5.1	6.2	3.5	3.7	3.4	4.1
4 Q	5.3	6.7	3.7	5.7	7.8	4.1
1989: 1 Q	3.2	1.3	5.8	4.0	0.8	6.7
2 Q	6.0	6.5	5.3	6.8	8.1	5.9
3 Q	4.2	3.0	5.8	5.7	5.1	6.3
4 Q	3.9	1.2	7.6	5.9	2.9	8.4

1/ Includes wages and benefits.

Source: First Hawaiian Bank, Research Division.

8. Estimated Population of Hawaii, 1989

The resident population of Hawaii as of July 1, 1989 was 1,112,100, according to estimates recently released by the U.S. Bureau of the Census. This total was 1.5 percent above the revised 1988 estimate and 15.3 percent higher than the 1980 census count.

The 1989 total included 56,400 members of the armed forces stationed or homeported in Hawaii, 60,300 military dependents in the State, and 995,500 civilians other than military dependents.

These estimates exclude visitors temporarily present but include residents away on business or vacation trips. Data for 1989 on these groups will not become available for several months.

The population of the Islands is still growing much more rapidly than that of the entire United States. Between April 1, 1980 and mid-1989, the U.S. population increased by 9.6 percent, well below the 15.3 percent growth of Hawaii.

The resident population of the State grew by 147,400 between the 1980 census and 1989 estimate date. This increase was composed of 171,800 live births, 51,500 deaths, and a net in-migration of 27,100. These figures include military families, who accounted for 21 percent of the births but only two percent of the deaths. Since most military families leave Hawaii after a two- or three-year tour of duty, taking their Island-born children with them, they record a large net out-migration--some 40,000, in fact, between 1980 and 1989. Excluding military personnel and their dependents, net in-migration over the 111-month postcensal period was 67,100, or 7,300 annually. The corresponding annual average during the 1970s was 10,600. Natural increase--the excess of births over deaths--accounted for 43.5 percent of the net growth in the 1970s and 56.2 percent in the first nine years of the '80s. The share attributable to net in-migration meanwhile declined from 55.6 to 44.2 percent.

Age estimates for 1989 reveal a much older population than that reported in 1980. The median age has risen to 32.3 years and the fastest growing age group has been the 65-and-over catgegory, with a 9.25-year increase of 56.6 percent.

These estimates were the work of the U.S. Bureau of the Census, made in conjunction with the Hawaii State Department of Business and Economic Development and Department of Health. The estimates were calculated by averaging the results of two separate methods, the Administrative Records Method and a Composite Method. Further information on these techniques is available from the Hawaii State Data Center.

Detailed data on the Statewide estimates of resident population appear in the three accompanying tables. Estimates of de facto population, which includes visitors but excludes absent residents, will become available in several months. Geographic breakdowns, by counties and districts, usually are completed during the early summer, but may be omitted in 1990 pending the release of preliminary tabulations from the decennial census, to be conducted as of April 1. Final results from that count are scheduled for publication at the State level as of December 31 and for smaller areas--counties, census tracts, and blocks--just three months later.

Table 8-1
RESIDENT POPULATION, BY MILITARY STATUS: 1980 TO 1989

[Excludes visitors present but includes residents temporarily absent and armed forces stationed or homeported in Hawaii]

Date	Total resident population	Armed forces 1/	Civilian population		
			All civilians	Military dependents 2/	Not military dependents
1980: April 1	964,691	57,056	907,635	64,023	843,612
July 1	968,900	57,900	911,000	64,100	846,900
1981: July 1	980,300	56,600	923,700	64,300	859,400
1982: July 1	997,700	54,900	942,800	66,700	876,100
1983: July 1	1,018,500	55,200	963,400	66,300	897,100
1984: July 1	1,035,800	57,300	978,500	67,100	911,400
1985: July 1	1,049,500	56,400	993,100	64,300	928,900
1986: July 1	1,063,700	58,100	1,005,600	66,200	939,400
1987: July 1	1,082,000	58,100	1,023,900	64,800	959,000
1988: July 1	1,096,200	56,800	1,039,300	69,900	969,400
1989: July 1	1,112,100	56,400	1,055,700	60,300	995,500

1/ These figures are the estimates developed by the U.S. Bureau of the Census for use in population estimation. They differ somewhat from corresponding figures from other sources (see DBED, Statistical Report 207).

2/ Dependents living in Hawaii, regardless of location of family head.

Source: Federal-State Cooperative Program for Local Population Estimates.

Table 8-2
COMPONENTS OF CHANGE IN THE RESIDENT POPULATION: 1980 TO 1989

[July 1 to June 30 unless otherwise specified]

Period	Net change		Births	Deaths	Net migration
	Number	Percent			
1980 to 1981 1/	15,600	1.62	22,500	6,100	-800
1981 to 1982	17,400	1.78	18,500	5,000	+3,900
1982 to 1983	20,800	2.09	19,000	5,300	+7,100
1983 to 1984	17,300	1.69	18,700	5,500	+4,100
1984 to 1985	13,700	1.32	18,600	5,700	+800
1985 to 1986	14,200	1.35	18,300	5,800	+1,600
1986 to 1987	18,300	1.72	18,400	6,000	+5,800
1987 to 1988	14,200	1.31	18,700	6,200	+1,600
1988 to 1989	15,900	1.45	19,100	5,900	+2,800
1980 to 1989 2/	147,400	15.28	171,800	51,500	+27,100

1/ April 1 to July 1 (15 months).
2/ April 1, 1980 to July 1, 1989.
Source: Federal-State Cooperative Program of Local Population Estimates.

Table 8-3
COMPONENTS OF CHANGE IN THE RESIDENT POPULATION, BY MILITARY STATUS: 1970 TO 1980 AND 1980 TO 1989

Period and component	All groups	Armed forces	Civilian population			
			Military dependents	Not military dependents		
				Number	Annual average	Percent distrib.
1970 TO 1980 1/						
Net change	+194,778	+1,911	+2,165	+190,702	+19,070	100.0
Natural increase	118,654	-447	36,233	82,868	8,287	43.5
Live births	161,831	-	37,234	124,597	12,460	...
Deaths	43,177	447	1,001	41,729	4,173	...
Net mil. separations 2/	-	-1,815	-	+1,815	+181	1.0
Net migration 3/	+76,124	+4,173	-34,068	+106,019	+10,602	55.6
1980 TO 1989 4/						
Net change	+147,400	-700	+3,700	+151,800	+16,400	100.0
Natural increase	120,300	-200	35,200	85,400	+9,200	56.2
Live births	171,800	-	36,000	135,900	14,700	...
Deaths	51,500	200	800	50,500	5,500	...
Net mil. separations 2/	-	+700	-	-700	-100	-0.4
Net migration	+27,100	-1,200	-38,900	+67,100	+7,300	44.2

1/ April 1, 1970 to March 31, 1980.
2/ Separations less inductions for armed forces.
3/ Includes error of closure.
4/ April 1, 1980 to June 30, 1989.
Source: Federal-State Cooperative Program for Local Population Estimates.

Table 8-4
RESIDENT POPULATION, BY AGE AND SEX: 1980 AND 1989

[In thousands. Includes armed forces stationed or homeported in Hawaii. The 1989 estimates are provisional]

Age group	April 1, 1980 (census)			July 1, 1989 (estimates)		
	Both sexes	Male	Female	Both sexes	Male	Female
Total	965	495	470	1,112	565	547
Under 5 years	78	40	38	89	46	43
5 to 14 years	148	76	72	157	81	76
15 to 24 years	192	105	87	169	90	78
25 to 34 years	180	92	88	196	101	94
35 to 44 years	111	56	55	175	88	88
45 to 54 years	94	45	50	107	51	56
55 to 64 years	85	42	43	100	50	50
65 to 74 years	49	26	23	75	36	39
75 to 84 years	21	10	11	34	17	17
85 years and over	6	2	4	10	4	6
5 to 17 years	198	102	96	199	102	97
18 to 24 years	142	79	63	127	69	58
25 to 44 years	291	148	143	371	189	182
45 to 64 years	180	87	92	207	102	106
16 years and over	723	370	352	853	432	422
18 years and over	689	353	336	825	417	407
21 years and over	631	320	310	771	388	382
65 years and over	76	38	38	119	57	62
Median age	28.3	27.6	29.1	32.3	31.5	33.2

Source: U.S. Bureau of the Census, *Current Population Reports, Population Estimates and Projections*, Series P-25, No. 1058.

Table 9-1
RECENT ECONOMIC AND DEMOGRAPHIC TRENDS: STATE OF HAWAII

Series 1/	Unit	Period 2/	Number	Percent change from same period in previous year
Resident population (p)	Persons	7/1/89	1,112,100	1.5
City and County of Honolulu	Persons	7/1/88	838,500	1.1
Hawaii County	Persons	7/1/88	117,500	2.4
Kauai Island	Persons	7/1/88	49,100	2.9
Maui Island	Persons	7/1/88	84,200	3.3
Molokai	Persons	7/1/88	6,600	0.7
Lanai	Persons	7/1/88	2,200	0.3
Niihau	Persons	7/1/88	207	2.5
Personal income	$ Million	3rd Q	20,609	11.1
Consumer price index (CPI-U):				
Honolulu	(1982-84 = 100)	Jan-Dec	128.7	5.8
U.S.	(1982-84 = 100)	Jan-Dec	124.0	4.8
Construction:				
Private permits	$ Million	Jan-Dec	1,881.3	22.1
Residential permits	$ Million	Jan-Dec	909.7	32.6
New single-family units	Number	Jan-Dec	6,846	10.6
New multi-family units	Number	Jan-Dec	2,939	13.3
Commercial & industrial	$ Million	Jan-Dec	561.7	4.2
Additions & alterations	$ Million	Jan-Dec	409.9	30.0
Government contracts awarded	$ Million	Jan-Dec	808.7	23.6
Construction cost indexes (Hon):				
Single-family units	(1982 = 100)	Jan-Dec	138.5	4.3
High-rise buildings	(1982 = 100)	Jan-Dec	133.2	5.6
Employment (p):				
Civilian labor force	Persons	Jan-Dec	522,600	1.3
Civilian employment	Persons	Jan-Dec	507,750	1.6
Civilian unemployment	Persons	Jan-Dec	14,850	-7.2
Unemployment rate	Percent	Jan-Dec	2.8	-
Total jobs	Number	Jan-Dec	539,000	3.0
Visitor industry:				
Total visitors (p)	Number	Jan-Dec	6,591,620	7.3
Westbound	Number	Jan-Dec	4,608,660	8.1
Eastbound	Number	Jan-Dec	1,982,960	5.6
Hotel/condo units for visitor use	Number	February	68,189	-1.2
Defense expenditures	$ Million	3rd Q	551.8	5.9
Sugar production (p)	$ Million	1988	324.0	-3.5
Pineapple sales (p)	$ Million	1988	247.0	-1.9

p Provisional estimates.
1/ Statewide data, unless indicated otherwise.
2/ Data for 1989, unless otherwise noted.

Errata

Due to a printer's error, the cover of the most recent *QUARTERLY STATISTICAL AND ECONOMIC REPORT*, 1st Quarter 1990, reflects incorrect contents. The cover should read:

- The Economy: Recent Trends and Outlook
- Regional Indexes of Leading Economic Indicators
- Estimated Population of Hawaii, 1989
- Statistical Tables

Also, on page 10, table 1-2, the forecast for 1991 Gross State Product in millions of constant 1982 dollars should read:

$20,015

We apologize for any inconvenience these errors may have caused.

RESEARCH AND ECONOMIC ANALYSIS DIVISION
DEPARTMENT OF BUSINESS AND ECONOMIC DEVELOPMENT
STATE OF HAWAII

S 2090-2

Envision Hawaii!

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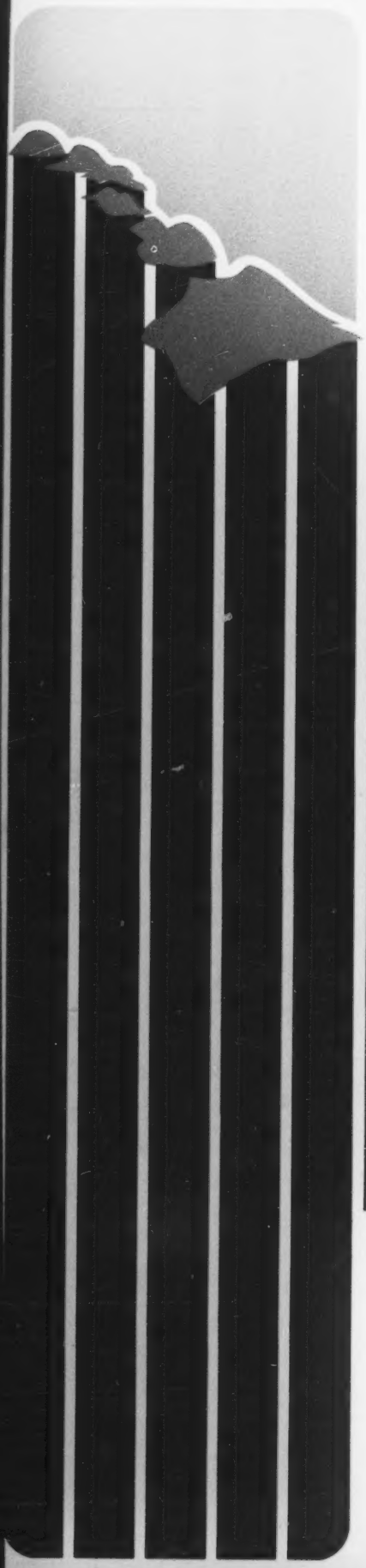
DEPARTMENT OF BUSINESS
AND ECONOMIC DEVELOPMENT



QUARTERLY

STATISTICAL & ECONOMIC REPORT

RESEARCH & ECONOMIC ANALYSIS DIVISION

- The Economy: Recent Trends and Outlook
- Ecotourism and Hawaii's Visitor Industry
- Statistical Tables

2nd QUARTER 1990

STATE OF HAWAII • 1959 •

This quarterly report has been prepared by the staff of the Research and Economic Analysis Division of the State Department of Business and Economic Development (DBED) under the direction of Dr. Richard Y. P. Joun, Division Head. It presents information and analysis concerning current statistical and economic trends affecting Hawaii. Technical notes and source descriptions have been kept to a minimum. However, the staff of the Research and Economic Analysis Division will be happy to respond to any inquiries of a technical nature that readers may have (548-3067).

This report has been cataloged as follows:

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1. THE ECONOMY--RECENT TRENDS AND OUTLOOK

Despite a flattening in the visitor arrival rate earlier this year, Hawaii's economy continued to surge ahead in the first quarter of the year. A continuing construction boom and stronger than expected Japanese tourism helped keep up the economy's momentum. Concern in the second quarter that a strengthening dollar would discourage Japanese tourism and investment proved unfounded. By late May, the situation had reversed and the yen began gaining strength against the dollar.

The national economy continued to drift along without showing a decisive tendency towards either growth or recession in the first half of the year. After a stronger than expected GNP growth and an upward trend in inflation and interest rates in the first quarter, the economy appeared to have weakened somewhat in the second quarter.

The outlook for Hawaii is for continued moderate growth even though the weaker Mainland economy will continue to subdue the overall visitor count.

CURRENT ECONOMIC CONDITIONS

Visitor Industry

In spite of the widely-publicized March strike of major Waikiki hotels, the visitor industry managed to show a 4.0 percent increase in total arrivals for the first five months of 1990. Eastbound visitors, primarily from Japan and other Asian countries, increased an unexpectedly strong 12.9 percent. The number of westbound arrivals (primarily from the Mainland U.S. and Canada), however, showed little increase over the same period last year, rising only 0.5 percent.

The strong showing for Japanese tourism was impressive in light of the weakening of the yen with respect to the dollar over the past year. From a value of 132 per dollar in April of last year, the yen depreciated to about 160 per dollar in April of this year before strengthening in May. There have been some indications, however, that while the arrival rate has not been affected by the decline in the yen's value, average daily expenditures by Japanese visitors may have decreased somewhat. This will be difficult to verify with statistics, however. While the Hawaii Visitor's Bureau has

Figure 1-1
Total Visitor Arrivals
(annualized quarterly totals)

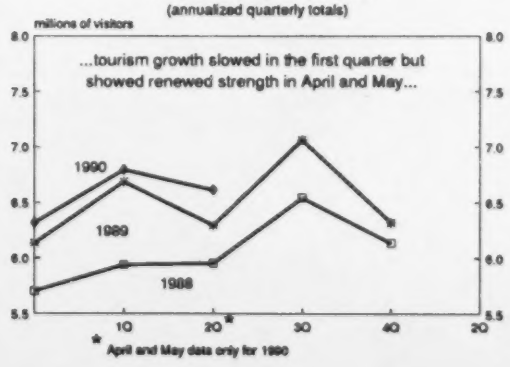
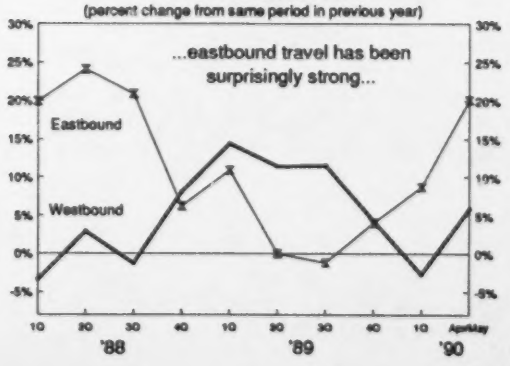


Figure 1-2
Tourism Growth Rate
(percent change from same period in previous year)



begun a program this year to survey the expenditures of Japanese visitors to Hawaii, there are no comparable data for previous years with which to compare results when they become available. The first preliminary results from the survey program may be available some time in the second half of the year.

By county, the Big Island of Hawaii fought the overall state trend and turned in a strong 8.0 percent increase in westbound visitors for the first five months. Oahu experienced a 0.4 percent decline in westbound visitors while Kauai and Maui showed declines of 4.5 and 8.1 percent, respectively.

For the first time, eastbound visitors to the counties are also being accounted for, thanks to a new eastbound air passenger survey begun late last year by the Hawaii Visitors Bureau. Unfortunately, the absence of prior year data for comparison leaves the increase or decrease in eastbound visitors from 1989 in doubt on a county basis. Data for the first four months of 1990 show that the proportion of eastbound visitors varies markedly between Honolulu and the Neighbor Islands. Almost 40 percent of Oahu's total visitor count were eastbound visitors compared with a range of 14 to 16 percent on the Neighbor Islands. This tends to confirm previous indications that Oahu is most sensitive to changes in the eastbound (primarily Japanese) market, while the Neighbor Island visitor industry is affected primarily by fluctuations in the westbound market.

Overall hotel occupancy rates in the first quarter of 1990 were down slightly from their levels during the same 1989 period. This reflected the overall weakness in westbound visitor arrivals with Hawaii County showing increases in occupancy rates while Oahu, Maui, and Kauai showed declines.

The first quarter of 1990 also saw the opening of the Waikiki Prince Hotel, the first completely new hotel to open in Waikiki in many years.

Construction

So far in 1990, the construction industry has continued its strong showing of recent years. Construction employment remained at record high levels although the growth in new jobs has leveled off since last autumn. Revised job statistics show that construction employment surpassed the 29,000 level in June of last year. This effectively broke the all time record for construction employment set in July of 1974, at the height of a condominium building boom. The revised figures show construction employment rose to 31,600 in November of last year, with the average employment in the industry for all of 1989 posting an unprecedented 25 percent increase over the preceding year. Since November, employment has settled back to about the 30,000 level.

The taxable value of construction completed in the first quarter of 1990 showed a lofty 26.3 percent increase from the same period a year earlier.

Total private building authorizations rose 7 percent during the first five months of 1990 compared with the same 1989 period. Combined with the large decline seen in the fourth quarter of 1989, indications are that the overall growth in construction may be flattening out in the future from the double-digit growth seen in recent years. While new authorizations for residential construction remain in a growth mode with an increase of 34 percent in the first five months of 1990, this has been offset by declines in new authorizations for commercial and industrial projects, down by 46 percent in the first five months.

The value of government contracts awarded declined during the first five months of 1990, dropping by 29 percent over the same period of 1989. Contracts awarded declined in all sectors of government, with the largest decrease occurring in planned Federal projects.

Defense Activity

The dramatic decline in superpower tensions and the virtual political disintegration of the European East-bloc over the past year have prompted the Congress and Administration to initiate significant cuts in the level of defense expenditures in future years. So far there is no firm indication as to how this changing military posture will affect Hawaii's $2 billion Federal defense sector. No Hawaii installations were among the large number of facilities slated earlier in 1990 for closure over the next few years. There is even speculation that cuts in U.S. forces in Asia (primarily the Philippines, South Korea, and Japan) could result in more military activity in Hawaii. In addition, Hawaii is still considered a prime site for the deployment of a battleship group unless significant changes are made in these deployment plans.

There have been some recent cutbacks at the Pearl Harbor Navy Shipyard (45 jobs were cut in May). However, reductions in the total level of activity at the shipyard have been ongoing for a number of years. The major contractor at the Pacific Missile Range Facility located at Barking Sands on Kauai has also reduced its work force due to a lower than anticipated work load.

Year-end data show that spending by the major armed services in Hawaii topped $2 billion in 1989. However, changes in reporting methods among the services have clouded interpretation of their spending in terms of growth and comparability among the services themselves. In addition, there is other defense spending in Hawaii outside of the major services which is not captured in this total. A firm total for all defense and Federal spending for 1990 will not be known until the Federal government compiles the data for FY 1989 and 1990.

General Business Conditions

Total business transactions subject to general excise and use tax continued to increase at a rapid rate in early 1990. Business transactions posted a 10.3 percent increase in value for the first three months of the year following an overall 13.4 percent increase for 1989 as a whole. The first quarter increase was led by a 14.4 percent increase in the service sector. Manufacturing was the only sector showing a decline, falling 5.6 percent from the same period in 1989.

The growth in tax revenues distributed to the State's General Fund slowed in the first quarter of 1990 to 7.5 percent above the same quarter in 1989. The slowdown appeared to be the result of individual and corporate income tax refunds which dampened net income tax collections. General excise tax collections were up a healthy 15.6 percent in the first quarter. It is likely that after the tax season, net income tax collections will begin showing more substantial gains over the previous year.

Figure 1-3
Construction Activity

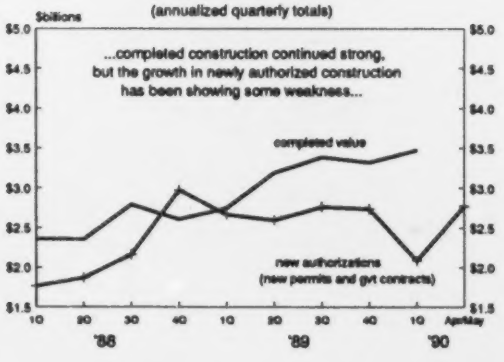
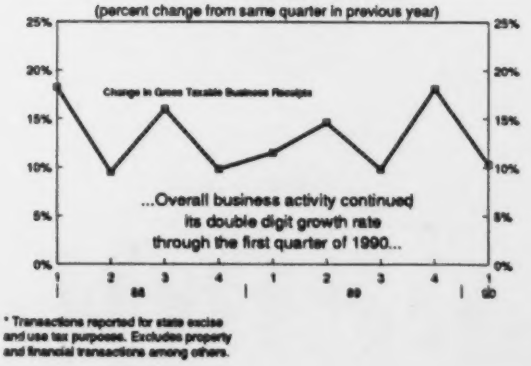


Figure 1-4
Growth in Business Sales *



* Transactions reported for state excise and use tax purposes. Excludes property and financial transactions among others.

Figure 1-5

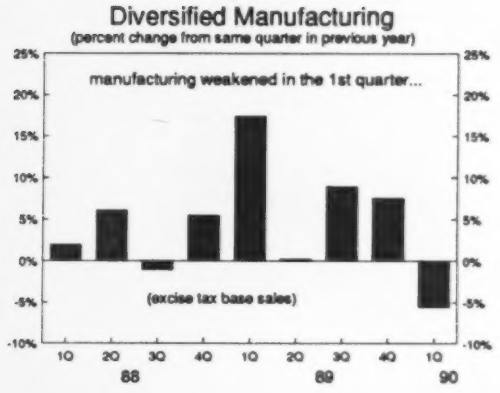
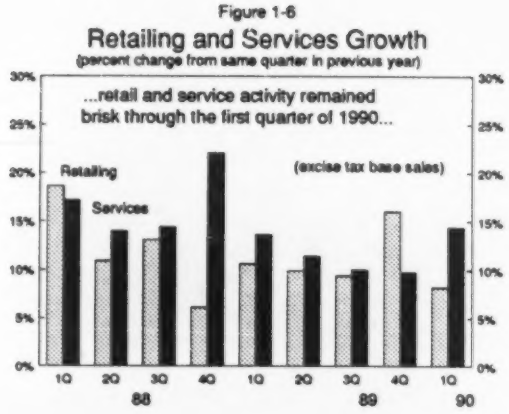


Figure 1-6



Employment and Income

Revised jobcount data show that Hawaii's economy was even more robust in 1989 than earlier data indicated. There were an estimated 551,150 jobs on average in the State during 1989, up 5.1 percent or 26,650 jobs from the year before. The large increase in construction employment has been noted. However, the most significant contribution to job growth was in Hawaii's largest sector, services, which experienced an 8.5 percent growth for the year.

This rapid pace of job formation continued into the first quarter of the year with a 5.0 percent increase over the same period of the previous year. However, this total may have been inflated by the number of temporary workers hired to fill in for striking workers during the March strike of the major Honolulu hotels. Both the replacement and striking workers are counted as part of the total job base for the period. Next to construction, hotel jobs have been the fastest growing employment source in the State over the past two years, growing 9.9 percent in 1988 and 7.7 percent in 1989.

Overall employment growth would have been even faster had it not been for declines in agriculture. The number of agricultural wage and salary jobs including sugar and pineapple declined 4 and 5 percent in 1988 and 1989, respectively. Through the first quarter of this year, jobs in agriculture are down almost another 4 percent from the same 1989 period. This retrenchment in agri-

Figure 1-7

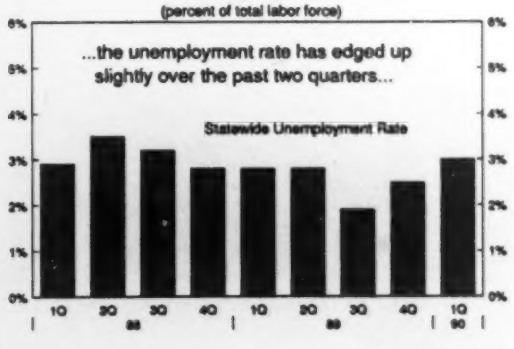
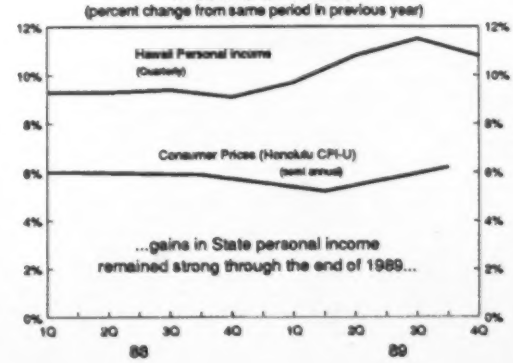


Figure 1-8



cultural employment has impacted food processing activity where job growth was flat in 1988 and declined 6 percent in 1989. In the first quarter of this year, food processing jobs, which are part of the manufacturing sector, declined nearly 7 percent in number from the same quarter of 1989.

The unemployment rate in Hawaii in the first quarter of 1990 increased slightly to 3 percent, but remained well below the national average of 5.2 percent. The Hawaii rate is slightly above the average 2.6 percent average unemployment experienced in 1989. The modest rise indicates that despite the rapid pace of employment growth and the State's exceptionally tight labor market, there are some additional labor resources which could be tapped, although perhaps mainly at the unskilled level.

Per capita personal income in Hawaii surged 9.2 percent in 1989. The national rate of increase was 6.5 percent. This places Hawaii's per capita personal income 4 percent above the national average and thirteenth among the fifty states. The increase in total personal income in the state in 1989 (10.7 percent) ranked Hawaii third among all states.

The National Economy

The U.S. economy continued to expand in the first quarter of 1990, extending the longest peacetime expansion since World War II. Growth in real GNP was 1.9 percent for the quarter. Many economists view this moderate level of growth as relatively favorable since the alternatives are either a recession, which would raise unemployment, or a return to accelerated growth, which would tend to push already high interest and inflation rates even higher.

Earlier in the year, inflation fears were kindled by a higher than expected increase in the Consumer Price Index (CPI-U). The CPI increased at an annualized rate of 8.2 percent for the quarter, led by increases in energy and food costs. However, those fears were at least partially alleviated by more encouraging data in the second quarter, and the overall CPI is expected to rise less than 5 percent for 1990 as a whole (as discussed in the following section).

Figure 1-9

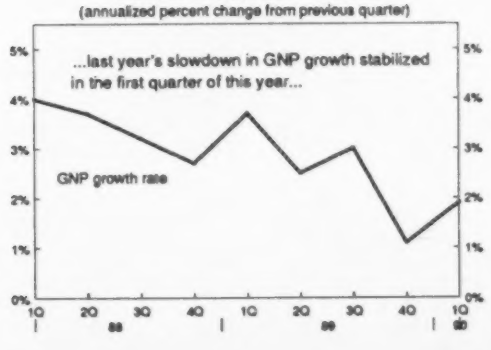
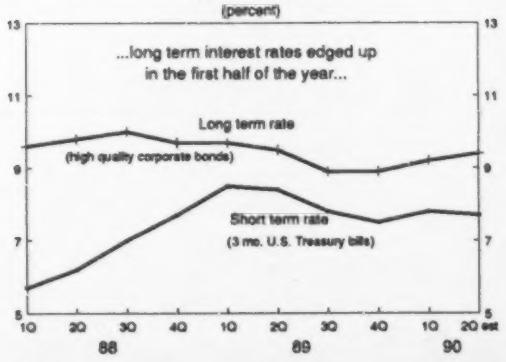


Figure 1-10



ECONOMIC OUTLOOK AND FORECASTS

Outlook for the Balance of 1990

The outlook for both the U.S. economy and the Hawaiian economy remains little changed from earlier forecasts. Both the State and the national economies are forecasted to show small but positive growth for the remainder of the year with the State continuing to grow at a stronger rate than the nation as a whole.

A "consensus" average of about 50 updated national forecasts shows an anticipated growth of real GNP in 1990 of 1.9 percent compared to the 1989 rate of 2.6 percent. An economic growth rate of around 2 percent is considered high enough to keep the nation out of a recession and yet low enough to keep interest rates and inflation under control. This rate of growth is also expected to keep unemployment near its current level of about 5.5 percent.

Following a sharp jump in U.S. inflation rates in the first quarter, price increases are expected to moderate for the remainder of 1990, resulting in a 4 to 5 percent average for the year. Interest rates are also expected to remain stable for the remainder of the year with some hope for an easing in rates if substantive progress can be made on reducing the U.S. budget deficit.

The value of the U.S. dollar is also expected to remain relatively stable in international currency markets.

Hawaii's economy is expected to show continued growth for the remainder of 1990 and continue to outpace the national economy. Due to the strength of the State's economy, both inflation and unemployment are, however, expected to differ from the national averages. Inflation, as measured by the CPI-U, is expected to be higher than the national average while unemployment will remain significantly lower. The tight job market is probably a prime cause for the somewhat higher inflation rate being experienced in Hawaii as compared to the rest of the nation.

The updated DBED forecast for the balance of 1990 shows an increase in visitor arrivals of 3.0 percent over 1989. This forecast represents an upward revision from an earlier forecast of a 2.0 percent increase for 1990, and is based on a stronger than expected increase in visitors from Japan during the early months of this year. The Japanese visitor increase occurred despite the fact that the U.S. dollar rose significantly against the yen in the early months of this year. A stronger dollar tends to discourage foreign travel to the U.S. The dollar/yen exchange rate has stabilized and actually de-

Figure 1-11

National Outlook: Nearterm

(annualized percent change from previous quarter)

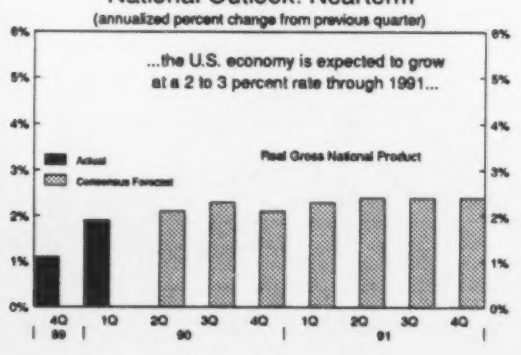
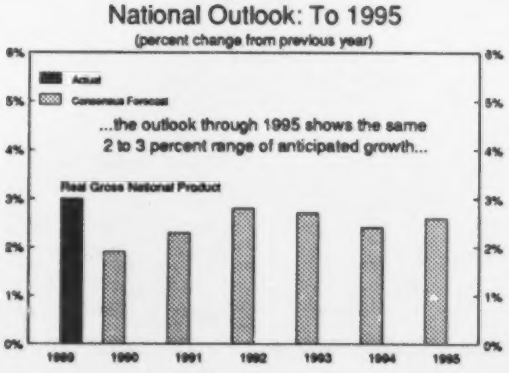


Figure 1-12

National Outlook: To 1995

(percent change from previous year)



clined in recent months, and Japanese arrivals are likely to remain in the double-digit growth range for the remainder of 1990. Westbound visitors, however, will continue to show very little growth if any for 1990 as a whole, as previously forecast.

Construction is also expected to remain strong for the balance of 1990. While permits for new private building activity have leveled out considerably and government contracts have shown declines in recent months compared with the same months a year ago, this should not affect the near-term outlook for the industry which continues to be very strong.

Forecast for 1991 and Beyond

At the national level, relatively little change is forecast in the economy's current course over the next five years. Of course, unforeseeable occurrences in the domestic economy or significant world events with global impacts could affect this anticipated stability at any time. Still, the economic fundamentals suggest a remarkably stable U.S. economy over this period.

After a relatively sluggish 1990, the growth rate for the U.S. as a whole is expected to pick up steam in 1991. The Blue Chip Economic Indicator's consensus of leading economic forecasts foresees slow to moderate growth throughout the next five year period. Real GNP growth is projected to average 2.6 percent between 1992 and 1995. Consumer prices are expected to average 4.0 percent during this entire period and national unemployment is expected to average 5.4 percent. Treasury bill rates (3 month) and corporate Aaa bonds are anticipated to average about 6.8 percent and 8.6 percent, respectively (although interest rates are among the least stable and predictable economic variables).

Internationally, changes in the Soviet Union, the opening up of Eastern Europe, including the potential reunification of East and West Germany, add uncertainty to forecasts for the national and global economy, although it is too early to anticipate how these factors will affect the economy.

Hawaii is also expected to show continued and relatively stable growth over the next five years. It is unlikely, however, that the State's economy will be able to match the strong and exceptional rate of growth of the past several years, but it will probably continue to outpace the national economy in the next five years. The State's unemployment rate is expected to remain well below the national average while consumer prices will probably continue to rise faster than for the nation as a whole.

The visitor industry is expected to continue to lead the growth in the local economy through 1995. While it is doubtful that the rate of growth in this industry over the next five years will be able to match that of recent years, tourism should enjoy at least moderate growth during the period.

Figure 1-13
Hawaii Outlook: Tourism

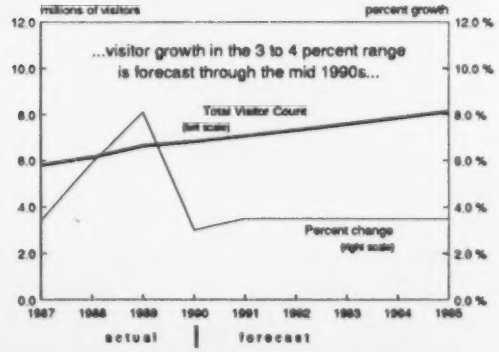


Figure 1-14
Hawaii Outlook: Jobs Growth

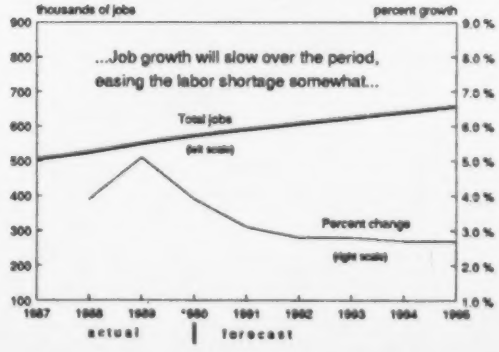


Table 1-1
U.S. Economic Forecast to 1991

	1990				1991 Forecast				Forecast		
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1989	1990	1991
Annualized % growth rates from prior quarter											
Real GNP	1.9	2.1	2.3	2.1	2.3	2.4	2.4	2.4	3.0	1.9	2.3
Industrial production	-0.4	2.2	2.2	2.2	2.5	2.7	2.8	2.7	3.3	1.3	2.5
GNP deflator	5.7	4.0	3.9	4.0	4.2	4.0	4.0	4.1	4.1	4.0	4.0
Consumer price index	8.2	3.8	3.9	4.2	4.5	4.3	4.3	4.3	4.8	4.3	4.2
Producer price index	9.0	1.5	3.0	3.7	4.0	3.7	3.8	4.1	5.3	3.5	n.a.
Real disposable income	2.2	1.8	2.0	2.0	2.4	2.2	2.4	2.2	4.1	2.1	2.3
Corp. pretax profits	12.1	-1.8	12.7	41.9	-4.5	14.3	6.5	14.1	-5.2	0.3	11.4
Residential Investment 1/	10.8	-0.5	-7.2	3.8	6.1	5.2	3.7	2.6	-2.9	-0.5	2.8
Net exports 1/	46.3	-14.6	1.9	4.7	18.9	8.9	-6.4	31.6	29.8	21.7	8.5
Average for quarter (percent)											
Unemployment rate	5.3	5.4	5.5	5.5	5.5	5.5	5.5	5.5	5.3	5.4	5.5
Prime Rate	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.9	10.0	10.0
3-mo.Treas. bill rate	7.8	7.7	7.6	7.5	7.5	7.5	7.5	7.4	8.1	7.6	7.5
AAA corp. bond rate	9.2	9.4	9.3	9.2	9.2	9.1	9.1	9.1	9.3	9.3	9.1

n.a.: not available

1/ growth in constant dollars

Source: Eggert Economic Enterprises, "Blue Chip Economic Indicators", June 10, 1990.

Visitor arrivals are forecasted to increase at an average rate of 3.5 percent per year throughout the 1991-1995 period. As has been the case in recent years, the highest growth rates in visitor arrivals will be associated with Japan, other parts of Asia and the new market of Europe, while westbound arrivals from the U.S. Mainland and Canada will show more modest increases. However, by virtue of its vast size, the U.S. Mainland will remain Hawaii's dominant market for visitors.

The fast pace of growth in construction over the past several years will likely subside over the next five years. Many trades within the construction sector have found it difficult to supply enough skilled workers to satisfy demand, and both unions and employers have had to make special efforts to attract additional workers. Given the booming level of resort and commercial construction in the late 1980's which probably has or is soon to reach its peak, more moderate levels of growth, probably led by the residential sector, are likely to occur in the next few years.

Forecasting defense activities and expenditures during the next few years is more difficult than most other variables. New political developments around the world and the fate of U.S. military bases in other parts of the Pacific may both have impacts for Hawaii. As of now, Hawaii is not scheduled to be directly affected by the announced base closings planned in the next few years and, given current knowledge, little change is expected or forecast in the overall defense picture for Hawaii.

On the balance, agriculture is expected to show little growth during the 1991-1995 period. Diversified agriculture should continue to show growth in the 2 to 4 percent per year range. However, this growth will be countered by continued weakness in sugar and pineapple growing employment.

The DBED short- and intermediate-term forecasts are updated as conditions change and more data on current trends becomes available. The following tables represent the updated outlook for the State's economy as of June 1990.

Table 1-2
SUMMARY OF HAWAII FORECAST TO 1991

	Estimate 1989	% Change	Forecast 1990	% Change	Forecast 1991	% Change
Gross State Product						
Millions of current dollars	24,200	11.8	26,420	9.2	28,754	8.8
Millions of constant 1982 dollars	18,505	6.0	19,332	4.5	20,135	4.2
GSP deflator index (1982=100)	130.8	5.5	136.7	4.5	142.8	4.5
Visitor arrivals (millions)	6.6	8.1	6.8	3.0	7.1	3.5
Consumer Price Index (CPI-U) (1982-84=100)	128.7	5.8	135.8	5.5	142.6	5.0
Personal Income						
Millions of current dollars	20,370	10.7	22,305	9.5	24,237	8.7
Millions of constant 1980 dollars	13,136	4.6	13,633	3.8	14,109	3.5
Total Jobs (thousands)	551.2	5.1	572.5	3.9	590.6	3.1
Construction, real value (constant 1972 dollars)	1,028.5	14.6	1,190.5	15.6	1,258.6	5.7

TABLE 1-3
KEY ECONOMIC ASSUMPTIONS

	1987	1988	1989	1990	1991	1992	1993	1994	1995
Value	Actual			Forecast					
Honolulu CPI-U (1982-84=100)	114.9	121.7	128.4	135.8	142.6	149.7	157.2	165.1	173.3
Visitor arrivals (thous.)	5,799.8	6,142.4	6,641.8	6,837.8	7,075.3	7,322.9	7,579.2	7844.5	8119.1
Total population (thous.)	1,082.0	1,098.2	1,114.8	1,133.1	1,152.4	1,172.4	1,193.0	1214.1	1235.8
Mortgage rate (%)	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
Prime rate (%) 1/	8.2	9.3	10.9	10.0	10.0	10.0	10.0	10.0	10.0
Real GNP growth (%) 1/	3.7	4.4	3.0	1.9	2.3	2.8	2.7	2.4	2.6
Annual percent growth									
Honolulu CPI-U	5.0	5.9	5.8	5.5	5.0	5.0	5.0	5.0	5.0
Visitor arrivals	3.4	5.9	8.1	3.0	3.5	3.5	3.5	3.5	3.5
Total population	1.7	1.5	1.5	1.6	1.7	1.7	1.8	1.8	1.8

1/ "Blue Chip Economic Indicators" Consensus Forecast, March 10 and June 10, 1990.

Source for Tables 1-2 and 1-3: Research and Economic Analysis Division, Department of Business and Economic Development, Hawaii Econometric Forecasting Project, June 1990.

TABLE 1-4

PROJECTED PERSONAL INCOME AND COMPONENTS

CURRENT DOLLARS

	1988	1989	1990	1991	1992	1993	1994	1995
	Actual		Forecast					
Millions of dollars								
PERSONAL INCOME	18,398.8	20,370.1	22,304.6	24,237.2	26,263.9	28,443.3	30,800.0	33,355.3
NET EARNINGS OF RESIDENTS	13,219.6	14,816.6	16,347.6	17,867.7	19,467.6	21,190.9	23,059.8	25,093.1
LABOR INCOME	12,778.1	14,394.2	15,897.7	17,391.7	18,973.7	20,683.0	22,538.9	24,560.1
WAGES & SALARIES	11,751.7	13,270.3	14,642.1	16,005.2	17,448.7	19,008.3	20,701.6	22,545.7
OTHER	1,026.4	1,123.9	1,255.6	1,386.5	1,525.0	1,674.7	1,837.3	2,014.3
PROPRIETORS' INCOME	1,349.8	1,475.1	1,632.3	1,787.3	1,942.1	2,104.5	2,279.2	2,468.0
LESS: SOCIAL INSUR. TAXES	(908.3)	(1,052.7)	(1,182.4)	(1,311.3)	(1,448.2)	(1,596.6)	(1,758.3)	(1,935.0)
PROPERTY INCOME	2,723.6	2,911.3	3,117.1	3,325.4	3,548.6	3,787.9	4,044.4	4,319.5
TRANSFER PAYMENTS	2,455.6	2,642.1	2,840.0	3,044.2	3,247.5	3,464.5	3,695.9	3,942.8
Annual (%) growth rates								
PERSONAL INCOME	9.3	10.7	9.5	8.7	8.4	8.3	8.3	8.3
NET EARNINGS OF RESIDENTS	9.3	12.1	10.3	9.3	9.0	8.9	8.8	8.8
LABOR INCOME	9.9	12.6	10.4	9.3	8.7	9.0	9.0	9.0
WAGES & SALARIES	9.8	12.9	10.3	9.3	8.6	8.9	8.9	8.9
OTHER	11.4	9.5	11.7	10.4	10.0	9.8	9.7	9.6
PROPRIETORS' INCOME	7.3	9.3	10.7	10.9	8.7	8.4	8.3	8.3
LESS: SOCIAL INSUR. TAXES	14.3	13.5	12.3	10.9	10.4	10.2	10.1	10.0
PROPERTY INCOME	11.1	14.4	7.1	6.3	6.7	6.7	6.8	6.8
TRANSFER PAYMENTS	7.0	7.6	7.5	7.2	6.7	6.7	6.7	6.7

CONSTANT DOLLARS

	1988	1989	1990	1991	1992	1993	1994	1995
	Actual	Estimated	Forecast					
Millions of 1980 dollars								
PERSONAL INCOME	12,547.5	13,135.7	13,633.4	14,109.2	14,560.9	15,018.3	15,488.2	15,974.5
NET EARNINGS OF RESIDENTS	9,010.5	9,463.4	9,992.3	10,328.9	10,852.9	11,189.0	11,595.9	12,017.6
LABOR INCOME	8,709.6	9,282.1	9,717.3	9,996.7	10,519.2	10,920.8	11,334.0	11,762.3
WAGES & SALARIES	8,010.0	8,557.4	8,949.8	9,162.6	9,673.7	10,036.5	10,410.1	10,797.6
OTHER	699.6	724.7	767.5	807.1	845.5	884.3	923.9	964.7
PROPRIETORS' INCOME	920.0	951.2	997.7	1,080.4	1,136.6	1,111.2	1,146.1	1,182.0
LESS: SOCIAL INSUR. TAXES	(619.1)	(678.8)	(722.7)	(763.3)	(802.9)	(843.0)	(884.2)	(926.7)
PROPERTY INCOME	1,863.2	1,877.4	1,905.3	1,935.8	1,967.4	2,000.0	2,033.8	2,068.7
TRANSFER PAYMENTS	1,673.7	1,703.8	1,735.9	1,772.1	1,800.4	1,829.3	1,858.5	1,888.3
Annual (%) growth rates								
PERSONAL INCOME	3.2	4.7	3.8	3.5	3.2	3.1	3.1	3.1
NET EARNINGS OF RESIDENTS	3.2	5.0	4.1	3.7	3.4	3.4	3.3	3.6
LABOR INCOME	3.8	6.6	4.7	2.9	5.2	3.8	3.8	3.8
WAGES & SALARIES	3.7	6.8	4.6	2.4	5.6	3.8	3.7	3.7
OTHER	5.2	3.6	5.9	5.2	4.8	4.6	4.5	4.4
PROPRIETORS' INCOME	1.3	3.4	4.9	8.3	5.2	-2.2	3.1	3.1
LESS: SOCIAL INSUR. TAXES	8.0	9.6	6.6	5.6	5.2	5.0	4.9	4.8
PROPERTY INCOME	4.9	0.8	1.5	1.6	1.6	1.7	1.7	1.7
TRANSFER PAYMENTS	-1.1	1.8	1.9	2.1	1.6	1.6	1.6	1.6

Source: Department of Business and Economic Development, Hawaii Econometric Modeling Project, June, 1990.

TABLE 1-5
PROJECTED EMPLOYMENT (JOBS) BY SECTOR

	1989	1990	1991	1992	1993	1994	1995
	Actual	Forecast					
Thousands							
TOTAL JOBS	551.2	572.5	590.6	606.2	621.7	637.4	653.3
CONSTRUCTION	29.2	31.3	32.8	32.8	32.8	32.8	32.8
MANUFACTURING	21.3	21.9	22.1	22.2	22.2	22.2	22.3
DURABLE	4.2	4.4	4.5	4.5	4.6	4.7	4.8
NONDURABLE	17.1	17.6	17.7	17.6	17.6	17.5	17.5
FOOD PROCESSING	9.4	9.7	9.7	9.6	9.5	9.4	9.3
OTHER	7.7	7.9	8.0	8.0	8.1	8.1	8.2
TRANS. COMM. & UTILITIES	40.2	40.8	41.6	42.3	43.1	43.9	44.8
TRADE	133.0	138.8	143.8	148.6	153.3	158.0	162.8
RETAIL	111.0	115.6	119.7	123.7	127.7	131.8	136.0
WHOLESALE	22.0	23.1	24.1	24.9	25.6	26.2	26.8
FINANCE/INSUR/REAL EST.	35.1	36.1	37.4	38.8	40.2	41.7	43.2
SERVICES	144.6	151.5	157.5	162.8	168.0	173.1	178.1
HOTELS	37.0	38.0	38.7	39.4	40.1	40.9	41.6
GOVERNMENT	101.5	104.2	106.7	109.3	112.1	114.9	117.8
FEDERAL	33.8	33.8	33.8	33.8	33.8	33.8	33.8
STATE & LOCAL	67.7	70.4	72.9	75.5	78.3	81.1	84.0
AGRICUL. (WAGE & SALARY)	9.6	9.9	10.0	10.0	10.0	10.1	10.1
SUGAR	3.3	3.3	3.3	3.2	3.1	3.0	2.9
PINEAPPLE	1.9	1.9	1.9	1.9	1.9	1.9	1.9
DIVERSIFIED	4.5	4.7	4.8	4.9	5.0	5.2	5.3
SELF-EMPLOYED	36.7	38.0	38.7	39.4	40.0	40.7	41.4
Annual percentage growth							
TOTAL JOBS	5.1	3.9	3.1	2.7	2.6	2.5	2.5
CONSTRUCTION	24.8	7.2	4.8	0.0	0.0	0.0	0.0
MANUFACTURING	-3.2	2.8	0.9	0.5	0.0	0.0	0.5
DURABLE	-1.2	4.8	2.3	0.0	2.2	2.2	2.1
NONDURABLE	-3.7	2.9	0.6	-0.6	0.0	-0.6	0.0
FOOD PROCESSING	-5.5	3.2	0.0	-1.0	-1.0	-1.1	-1.1
OTHER	-1.3	2.6	1.3	0.0	1.2	0.0	1.2
TRANS. COMM. & UTILITIES	5.8	1.5	2.0	1.7	1.9	1.9	2.1
TRADE	4.4	4.4	3.6	3.3	3.2	3.1	3.0
RETAIL	4.0	4.1	3.5	3.3	3.2	3.2	3.2
WHOLESALE	6.0	5.0	4.3	3.3	2.8	2.3	2.3
FINANCE/INSUR/REAL EST.	1.9	2.8	3.6	3.7	3.6	3.7	3.6
SERVICES	8.5	4.8	3.9	3.4	3.2	3.0	2.9
HOTELS	8.7	1.2	1.7	1.7	1.7	1.9	1.6
GOVERNMENT	2.0	2.7	2.4	2.4	2.6	2.5	2.5
FEDERAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STATE & LOCAL	3.0	4.0	3.6	3.6	3.7	3.6	3.6
AGRICUL. (WAGE & SALARY)	-4.0	3.1	1.0	0.0	0.0	1.0	0.0
SUGAR	-10.8	0.0	0.0	-3.0	-3.1	-3.2	-3.3
PINEAPPLE	8.6	0.0	0.0	0.0	0.0	0.0	0.0
DIVERSIFIED	-1.1	4.4	2.1	2.1	2.0	4.0	1.9
SELF-EMPLOYED	1.1	3.4	1.8	1.8	1.5	1.8	1.7

Source: Department of Business and Economic Development, Hawaii Econometric Forecasting Project, June 1990

2. ECOTOURISM AND HAWAII'S VISITOR INDUSTRY

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An important objective of the State is to diversify Hawaii's economy, including the visitor industry. Means of accomplishing the latter task include widening the geographic visitor base, developing conference and convention facilities, and promoting large sporting events, among others. Recently, another possibility for visitor industry diversification has attracted attention: the development of a visitor market known as "ecotourism."

This report explores the growing phenomenon of ecotourism and its implications for Hawaii's visitor industry.

Identifying Ecotourism

Ecotourism (sometimes also referred to as nature tourism) can be defined as travel to relatively undisturbed natural or historic areas to study, admire, and enjoy scenery, plants, animals, and cultural attractions [1]. Originally advocated as a means of promoting both conservation and economic development in developing countries, ecotourism is a major industry in places as diverse as Kenya and Costa Rica. The suggested benefits of ecotourism include increased foreign exchange receipts, infrastructure development, job creation, new markets for locally produced goods, increased government revenues through fees and taxes paid by visitors, and protection of natural areas that might otherwise be converted to alternative uses [1, 2].

Most tourism in Hawaii is more accurately characterized as "resort tourism" or "sun and sand" (S&S) tourism rather than as ecotourism. Though both types of tourism focus on the natural environment, resort tourism is normally associated with relatively developed facilities as opposed to the simpler facilities common to ecotourism.

Though the definition of ecotourism differentiates it conceptually from resort tourism, there is no firm agreement on which specific activities are or are not ecotourism. For the purposes of this report, ecotourism is divided into the following four groups of activities:

1. Recreation/adventure;
2. Research/education;
3. Conservation service (tours designed to improve the environment such as trail maintenance, litter removal, etc.); and
4. Cultural study.

Ecotourism can be characterized as either "hard" or "soft," a distinction that can be employed in two senses [3]. First, the terms can be used to separate ecotourists whose interest in natural history is dedicated (hard), such as scientists or other professionals, from those with a more casual (soft) interest. The hard/soft typology can also be used to describe the physical rigor of the tourist experience. Hard, in this sense, would refer to activities that involve either extensive physical activity (such as hiking to a remote area) or the use of relatively undeveloped facilities (such as camping in rough shelters with a lack of sanitary facilities).

Market Potential

As a group, ecotourists are usually financially well off, stay for relatively long periods, and are willing to pay a high price for a unique experience [4]. The limited survey information available indicates that ecotourists are primarily between the ages of 31 and 50, evenly split between men and women, and tend to be outdoors-oriented [5].

Ecotourism represents a growing segment of the worldwide visitor market and is expected to continue expanding in the future. Estimates, albeit rough, suggest that nature tourism travel is a 12 billion dollar industry globally, with a growth rate of approximately 20 per cent per year [6]. This growth is much faster than tourism in general and can be traced to the growing trend toward specialty travel and the increased interest in conservation and environmental issues [7].

In a survey of U.S. mainland tour operators involved in ecotourism, more than three-quarters

expected future demand for ecotourism to increase during the next five years with no operators anticipating a decrease in demand [8]. While this survey mostly dealt with ecotours to developing countries, mature resort destinations such as Hawaii may have the potential to capture some of the growth in this market.

Ecotourism in Hawaii

To date, there has been no apparent previous work to define and measure the size and scope of ecotourism in Hawaii. Table 2-1 represents an initial attempt to identify ecotourism activities in Hawaii according to the categories cited earlier. Clearly, most of these activities are not confined to pure ecotourists; many visitors primarily here for a resort-style vacation also participate in one or more of these activities.

Table 2-2 lists the estimated number of visitors to some of the more popular destinations associated with some of the ecotourism activities listed in Table 2-1. As Table 2-2 shows, ecotourism accounts for a substantial number of visitor days.

Table 2-1
SELECTED ECOTOURISM ACTIVITIES AND DESTINATIONS

Category	Activity	Destination
Recreation/adventure	Hiking/camping	All islands
	Kayaking/canoeing	N. Shore Molokai
		N. Shore Kauai
	Horseback riding	Maui
		Big Island
	Snorkeling/diving	Hanauma Bay
		Molokini Island
		Kona
	Birdwatching	All islands
	Wildlife viewing	Kilauea National Wildlife Refuge
Research/education	Botanical study	Hawaii Tropical Botanical Garden
		Pacific Tropical Botanical Garden
	Whale-watching	Maui
	Vulcanology	Volcanoes National Park
	Wildlife research	Kilauea NWR
Conservation Service	Weed-pulling	Hawaii Natural Area Reserves
		Nature Conservancy Preserves
	Trail maintenance	National Parks
		Hawaii State Parks
Cultural Study	Hawaiian culture/history	Puuhonua o Honaunau
		Kalaupapa
		Lapakahi State Historical Park

Table 2-2
NUMBER OF ANNUAL PARTICIPANTS/VISITORS AT SELECTED DESTINATIONS

Site	Visitors/ Participants (1988)
Volcanoes National Park	1,934,000
Haleakala National Park	1,344,000
Puuhonua National Historical Park	392,500
Kokee State Park	935,000
Na Pali Coast State Park	92,000
Hanauma Bay Marine Life Conservation District	3,650,000
Kilauea National Wildlife Refuge	300,000
Waimea Canyon State Park	912,000

Source: *The Hawaii State Data Book, 1989*, Department of Business and Economic Development.

While the number of visitors to ecotourism destinations is impressive, it is not necessarily a good indicator of the impact of ecotourism on the Hawaiian economy. This is partly because there is little data available at this time on the expenditure patterns and the size of this visitor market—data which would be necessary to make a plausible estimate of the economic impact of ecotourism. Also, these attendance data probably include a significant number of local residents which further clouds interpretation.

Advantages and Disadvantages of Ecotourism

Ecotourism is generally considered a low impact and hence relatively benign form of tourism. There are, however, both advantages and disadvantages apparent when comparing ecotourism to other forms of tourism or to the alternative of no tourism at all.

One advantage of ecotourism is its ability to attract visitors to areas that may currently receive few visitors. Most forms of "hard" ecotourism activity take place in remote or relatively inaccessible areas. In some cases, this may provide a valuable economic use of land as an alternative to developing it and, at the same time, provide nearby jobs for local residents. It can also stimulate the formation of small, specialized businesses to cater to this market. Thus, the introduction of ecotourism can offer opportunities to areas that may have few other alternatives for economic activity or areas in danger of losing current economic activity such as sugar or pineapple growing.

Ecotourism rarely requires extensive infrastructure development. Moreover, ecotourists as a group are usually more willing to accept relatively primitive facilities than are resort visitors. This can permit the development of a new activity or a new destination area with relatively little investment and in a short period of time. It also encourages the entry of small businesses to the market since capital requirements are modest.

Socially and environmentally, ecotourism also has advantages and disadvantages. Since, by definition, ecotourism takes place in relatively undeveloped areas, the addition of visitors to areas where few visitors have previously traveled may have detrimental impacts. Foremost among these are potential damage to the physical environment and negative socio-cultural effects.

Environmental degradation due to overuse has not yet become a significant issue at most land-based sites in Hawaii, although some popular hiking trails have experienced erosion problems. However, some of the more popular snor-

keling/diving sites, such as Molokini Island and Hanauma Bay, have shown signs of overuse.

Proper planning and management are essential if degradation is to be avoided. Strict measures to minimize disturbance and to prohibit the harvesting of resources (e.g., plants, flowers, aquatic life) must be enacted and enforced.

On the other hand, while the addition of visitors may have adverse environmental effects, there may also be positive benefits if the activities generate increased funds for conservation. Establishment of conservation service/ecosystem restoration trips as a form of tourism also may benefit the environment. Moreover, ecotourism may provide an economic incentive to protect land in its natural state rather than develop it. The net effect of this may be that more land is preserved than would otherwise have been the case.

The distribution of the benefits and costs associated with ecotourism is a further issue. Ecotourism has the potential to be of significant benefit to local residents, but this is not guaranteed. To maximize benefits to the local community, local entrepreneurship could be encouraged with emphasis on filling jobs with local residents. Development of ecotourist trips may also benefit local residents who would like to visit these areas but previously found it difficult to do so.

The arrival of visitors to areas that previously saw few visitors may create tension in certain circumstances. Involving communities in the planning process can help minimize these potential conflicts.

Potential Economic Development Impacts

Economically, one of the major questions determining the desirability of ecotourism for Hawaii is whether it would substitute for existing forms of tourism or increase the size of the overall visitor market. In an economic sense, two factors are of primary importance:

1. Overall increase in the number of visitor days attributable to ecotourism; and

2. Relative expenditures per day of ecotourists compared to other types of visitors.

Unfortunately, documentation on these factors for ecotourism is not available and special surveys would have to be developed to obtain such information.

While there is little hard data on the spending patterns of ecotourists, it is quite likely that their average daily expenditures will be less than that of other types of visitors. While resort accommodations alone often begin at $200 per day the rougher accommodations characteristic of ecotourism often cost far less. Moreover, there is little opportunity to spend large amounts of money during ecotours such as a hike through a remote area, for example. Still, many ecotours are pre-arranged and all-inclusive and there is often a premium paid to the tour operators for this convenience. This may result in total expenditures that rival those of resort tourists. Some sample rates for ecotours are given in Table 2-3.

Table 2-3
SAMPLE ECOTOURS AND PRICES

Tour	Length of tour	Price (dollars) 1/
Hawaii Birdwatching Tour	14 days	2,000 2/
Big Island Car Camping Tour	8 days	810
Helping to Preserve Hawaii's Special Places	9 days	705
Beaches to Volcano Backpacking Tour	10 days	705
Kauai Coastline Tour	8 days	890
Islands of Life Nature Tour	7 days	2,300
Paddlecraft Tour of N. Molokai	5 days	750
Paddlecraft Tour of S. Kona	4 days	549

1/ Includes inter-island air fares but not air fare from origins other than Honolulu.
2/ Estimate.
Source: Sierra Club Magazine; telephone interviews.

In terms of broader economic development goals, ecotourism may be able to reduce dependence on resort visitors and provide more diversification in the visitor industry. Since ecotourism is apparently a growing share of the tourism market, it could help counter declines in other segments of the industry as they occur. Given the size of the overall visitor industry in Hawaii, however, it is doubtful that pure ecotourists will ever comprise more than a few percent of the total visitor count.

A potential problem for ecotourism in Hawaii is that it cannot compete well with high value resort tourism for specific resources, especially land. However, ecotourism may be a suitable compromise where large scale development is not desirable but some economic activity would be beneficial to the community. Ecotourism also may be the best alternative in areas that can only accommodate limited numbers of visitors.

It appears likely that most of the growth in this segment of the industry will take place on the Neighbor Islands. Their lower population density and variety of undeveloped landscapes make these areas a more attractive destination to the ecotourism market.

Constraints on Ecotourism Development

While ecotourism is a growing industry with apparent potential for Hawaii, its potential long run growth in the State may be limited by a number of factors.

First, the environmental carrying capacity of many sites (the ability of the land to accommodate tourists without degradation) is limited. Careful evaluation is needed to determine the environmental carrying capacity of potential sites and later, steps may need to be taken to ensure that this capacity is not exceeded, particularly if the site becomes increasingly popular.

Also important is the social carrying capacity. Congestion can affect the quality of the ecotourism experience, both for visitors and residents using the site. Kalalau Valley on Kauai, for example, is a nature tourism destination that may have lost its appeal for some visitors due to increasing popularity and the resulting congestion. On the resident side, Hanauma Bay on Oahu, a snorkeling and diving spot, may have lost much of its popularity among residents due to the large number of visitors who now use the area.

Though ecotourism is a growing segment of the visitor industry, as a primary reason to come to Hawaii, it is still small relative to the overall tourism industry. Limited knowledge of the opportunities for ecotourism, both by visitors and tour operators, may be a constraining factor until more promotion of the activities is conducted. The limited number of operators involved in organizing ecotours in Hawaii may also act as a constraint.

Worldwide competition for ecotourists is increasing as developing countries realize that this type of tourism may bring many benefits. Hawaii's direct competition for ecotourism is quite varied, and probably includes the Caribbean, many Pacific Islands, Mexico, Latin America and parts of Asia. Many potential ecotourists from the U.S. may prefer the foreign and more exotic destinations for their tours though others will prefer the convenience of staying in-country.

Eventually, the number of sites in Hawaii suitable for ecotourism may act as a market constraint. This would not be a problem in the near future, however, since many sites potentially suitable for ecotourism are still available.

Further Development of Ecotourism in Hawaii

Expansion of ecotourism in Hawaii can take three forms. First, existing activities such as those cited in Tables 2-1 and 2-2 can be expanded to include greater numbers of people. Second, new activities could be developed and promoted. Third, new destinations for both existing and new activities could be developed.

If development of ecotourism can be encouraged in a way that promotes sound development and local goals, ecotourism would appear to have the potential to provide a number of benefits to the State. If there are economic benefits to be gained from ecotourism and the activity is considered desirable, a further policy consideration is the extent of public sector involvement in developing the industry. Growth in ecotourism could be encouraged through existing public sector promotional efforts, planning and development of ecotourism activities and destinations, and possibly by targeting financial

and managerial assistance to small ecotourism-oriented businesses. Alternatively, the private sector could take the lead role in the development of ecotourism. In this case, the private sector's assessment of the potential profitability will determine the pace of development.

Environmental groups such as the Sierra Club and The Nature Conservancy could also be important resources in the development of an ecotourism industry. Such groups already sponsor ecotours in Hawaii and benefit from the fees charged for these trips. If ecotourism were to take the form of conservation service activities, there would be even more incentive for these groups to become involved. The educational opportunities these trips provide are yet another reason for conservation groups to take an interest in this market.

Conclusions

Ecotourism apparently already fills a small though important role in Hawaii's visitor industry. While the number of visitors who come to Hawaii strictly for ecotourism is probably small, a much larger number of visitors participate in one or more activities which are fundamentally ecotourism. The availability of these activities may increase the average length of stay and sway certain visitors to choose Hawaii over competing destinations, although more data are needed to verify this.

Ecotourism has the potential to advance a number of economic development goals. Attracting small numbers of visitors to more remote and rural areas could promote the development of jobs and new sources of income where more economic opportunities are desired by the community. Encouraging the formation of small, locally-run enterprises could benefit both visitors and local residents. It could give visitors a more culturally authentic tour while residents would receive a larger portion of the economic benefits. Development of cultural tours also could help educate residents and visitors about the culture and history of the island or region.

Ecotourism can also advance environmental objectives. Already, ecotourism contributes both directly and indirectly to non-profit environmental organizations through fees collected as part of the cost of ecotours, by stimulating voluntary contributions, and by instilling a better understanding of the value and threats to natural areas. Moreover, ecotourism presents the opportunity to keep land in its natural state while making it an income-earning asset. This helps to reduce development pressures.

Ecotourism is not without its risks, however. One risk is the potential intrusion of tourism into sensitive environmental and social areas. Another is that the economic benefit of ecotourism to the State as a whole may be less than other forms of tourism.

Still, with proper planning and community input, ecotourism may find a niche in Hawaii. While ecotourism is not likely to become a major pillar of the visitor industry in Hawaii, it could play a role in the further diversification of the industry and in the long-term protection of natural resources.

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8. Op. cit 5/

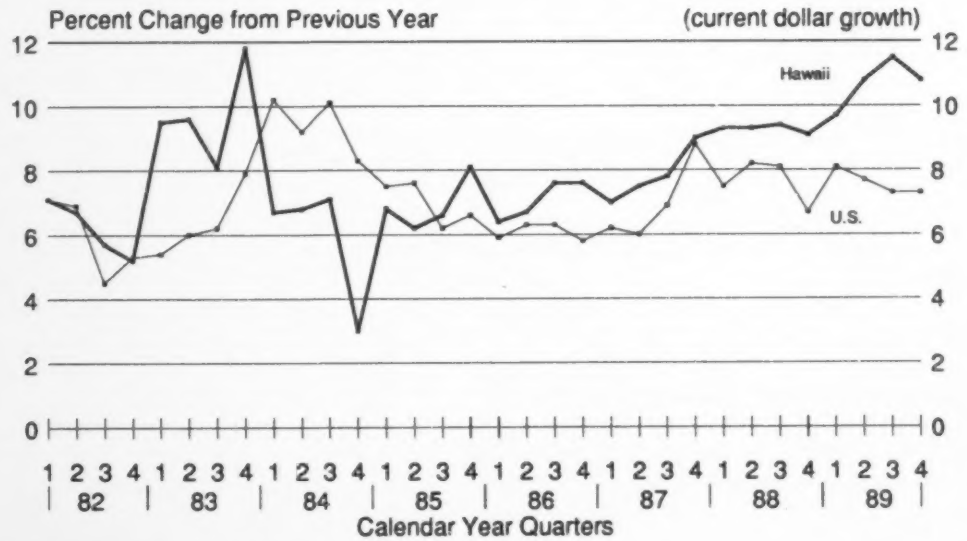
3. INCOME AND PRICES

Growth in State personal income continued to exceed the national rate due to the surge in construction activity coupled with continued expansion in tourism-related activity such as trade and services. From the fourth quarter of 1988 to the fourth quarter of 1989, total personal income increased 10.7 percent, a third place ranking in growth for the nation.

With the exception of apparel, all major categories of consumer spending for Honolulu showed higher prices for the second half of 1989 compared with the previous period. According to figures from the U.S. Department of Labor's Bureau of Labor Statistics, prices paid for goods and services purchased by urban consumers in the Honolulu metropolitan area went up 6.2 percent from the second half of 1988 to the second half of 1989 while growth for the first half was 5.2 percent (table 3-5). Price increases for the year averaged 5.8 percent for Honolulu compared with 4.8 percent for the nation.

Figure 3-1

GROWTH IN PERSONAL INCOME FOR THE U.S. AND HAWAII, QUARTERLY: 1982 TO 1989



SOURCE: DBED, Based on data from the Dept of Commerce, Bureau of Economic Analysis

Table 3-1
TOTAL PERSONAL INCOME FOR THE UNITED STATES AND HAWAII: 1980 TO 1989

[Dollar amounts in millions]

Year	Total personal income 1/		Percent change from same period in previous year	
	United States	Hawaii	United States	Hawaii
1980	2,254,076	10,279	11.1	13.8
1981	2,514,231	11,051	11.5	7.5
1982	2,663,432	11,732	5.9	6.2
1983	2,834,385	12,875	6.4	9.7
1984	3,101,163	13,628	9.4	5.8
1985	3,317,545	14,589	7.0	7.1
1986	3,519,364	15,607	6.1	7.0
1987	3,766,092	16,832	7.0	7.8
1988	4,053,282	18,388	7.6	9.2
1989	4,360,919	20,358	7.6	10.7
1986:				
1 Q	3,449,599	15,207	5.9	6.4
2 Q	3,506,709	15,441	6.3	6.7
3 Q	3,532,510	15,730	6.3	7.6
4 Q	3,588,638	16,051	5.8	7.6
1987:				
1 Q	3,664,066	16,276	6.2	7.0
2 Q	3,717,996	16,600	6.0	7.5
3 Q	3,777,771	16,963	6.9	7.8
4 Q	3,904,535	17,490	8.8	9.0
1988:				
1 Q	3,940,516	17,784	7.5	9.3
2 Q	4,022,113	18,143	8.2	9.3
3 Q	4,083,999	18,553	8.1	9.4
4 Q	4,166,501	19,073	6.7	9.1
1989:				
1Q	4,258,945	19,514	8.1	9.7
2 Q	4,331,901	20,105	7.7	10.8
3 Q	4,381,863	20,682	7.3	11.5
4Q	4,470,967	21,130	7.3	10.8

1/ Quarterly income seasonally adjusted at annual rates.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, release dated April 1990.

Table 3-2
PERSONAL INCOME, TOTAL AND PER CAPITA, BY COUNTIES: 1978 TO 1988

Year	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui and Kalawao
TOTAL (MIL. DOL.)						
1978	8,043.1	6,618.5	1,424.6	636.0	273.2	515.3
1979	9,030.9	7,395.5	1,635.4	724.4	313.0	598.0
1980	10,279.2	8,293.1	1,986.2	901.3	374.4	710.5
1981	11,051.4	9,039.9	2,011.4	895.8	378.3	737.3
1982	11,731.7	9,570.6	2,161.1	948.9	406.6	805.7
1983	12,875.3	10,396.3	2,479.0	1,080.7	462.7	935.5
1984	13,627.9	11,063.9	2,564.0	1,117.3	471.7	975.1
1985	14,588.7	11,815.8	2,772.8	1,188.4	515.8	1,068.6
1986	15,607.4	12,537.0	3,070.4	1,316.1	566.5	1,187.9
1987	16,832.2	13,515.1	3,317.2	1,420.4	616.4	1,280.4
1988	18,388.0	14,706.2	3,681.8	1,565.9	694.8	1,421.1
PER CAPITA (DOLLARS)						
1978	8,660	8,938	7.565	7,425	7,444	7,814
1979	9,506	9,816	8,318	8,133	8,234	8,600
1980	10,617	10,854	9,729	9,682	9,499	9,916
1981	11,275	11,765	9,496	9,232	9,308	9,944
1982	11,760	12,292	9,869	9,472	9,703	10,477
1983	12,640	13,107	10,995	10,526	10,764	11,724
1984	13,154	13,805	10,930	10,438	10,691	11,688
1985	13,874	14,568	11,535	10,851	11,365	12,502
1986	14,673	15,306	12,557	11,830	12,254	13,647
1987	15,557	16,303	13,114	12,378	12,861	14,186
1988	16,775	17,540	14,173	13,331	14,092	15,279

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Diskettes dated May 1990.

Table 3-3
TOTAL AND PER CAPITA PERSONAL INCOME FOR THE UNITED STATES AND HAWAII: 1980 TO 1989

Year	Total personal income (millions of dollars)		Per capita personal income (dollars)		Hawaii per capita income as a percentage of U.S.
	United States	Hawaii	United States	Hawaii	
1980	2,254,076	10,279	9,919	10,617	107
1981	2,514,231	11,051	10,949	11,273	103
1982	2,663,432	11,732	11,480	11,759	102
1983	2,834,385	12,875	12,098	12,641	104
1984	3,101,163	13,628	13,114	13,157	100
1985	3,317,545	14,589	13,896	13,900	100
1986	3,519,364	15,607	14,597	14,673	101
1987	3,766,092	16,832	15,471	15,557	101
1988	4,053,282	18,388	16,491	16,775	102
1989	4,360,919	20,358	17,567	18,306	104
	Percent change from previous year				
1980	11.1	13.8	9.8	11.7	1.7
1981	11.5	7.5	10.4	6.2	-3.8
1982	5.9	6.2	4.8	4.3	-0.5
1983	6.4	9.7	5.4	7.5	2.0
1984	9.4	5.8	8.4	4.1	-4.2
1985	7.0	7.1	6.0	5.6	-0.1
1986	6.1	7.0	5.0	5.6	0.5
1987	7.0	7.8	6.0	6.0	0.0
1988	7.6	9.2	6.6	7.8	1.2
1989	7.6	10.7	6.5	9.2	2.4

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Electronic Data Distribution System, release April 1990.

Table 3-4
CONSUMER PRICE INDEX, ALL URBAN CONSUMERS (CPI-U) FOR SELECTED ITEMS FOR HONOLULU: 1980 TO 1989

[1982-84 = 100]

Period	All items	Food & beverage	Housing 1/	Apparel and upkeep	Transportation	Medical care	Entertainment	Other
1980	83.0	84.2	83.2	89.8	86.6	73.1	78.2	73.3
1981	91.7	92.6	92.3	94.5	95.7	81.8	87.2	81.5
1982	97.2	96.9	98.0	98.4	99.0	91.6	95.7	92.0
1983	99.3	99.5	98.9	101.4	98.2	101.1	100.0	101.4
1984	103.5	103.6	103.1	100.2	102.9	107.3	104.3	106.6
1985	106.8	107.8	106.0	99.6	104.9	113.2	111.9	112.5
1986.....	109.4	110.0	108.4	99.8	105.2	122.3	113.2	119.6
1987	114.9	114.1	115.0	102.5	109.7	127.9	118.6	129.7
1988.....	121.7	120.3	123.0	106.8	116.1	132.5	122.9	137.1
1989.....	128.7	128.1	131.1	104.3	123.9	139.3	124.3	146.1
1988:								
1st half...	120.1	118.9	121.1	105.7	114.2	130.3	123.1	135.0
2nd half.	123.4	121.7	124.9	108.0	118.0	134.7	122.8	139.3
1989:								
1st half...	126.4	125.6	128.1	106.1	121.8	136.0	124.0	142.7
2nd half.	131.1	130.6	134.1	102.5	126.0	142.7	124.3	146.1
% increase:								
1980-81	10.5	10.0	10.9	5.2	10.5	11.9	11.5	11.2
1981-82	6.0	4.6	6.2	4.1	3.4	12.0	9.7	12.9
1982-83	2.2	2.7	0.9	3.0	-0.8	10.4	4.5	10.2
1983-84	4.2	4.1	4.2	-1.2	4.8	6.1	4.3	5.1
1984-85	3.2	4.1	2.8	-0.6	1.9	5.5	7.3	5.5
1985-86	2.4	2.0	2.3	0.2	0.3	8.0	1.2	6.3
1986-87	5.0	3.7	6.1	2.7	4.3	4.6	4.8	8.4
1987-88.....	5.9	5.4	7.0	4.2	5.8	3.6	3.6	5.7
1988-89.....	5.8	6.5	6.6	-2.3	6.7	5.1	1.1	6.6
1st half...	5.2	5.6	5.8	0.4	6.7	4.4	0.7	5.7
2nd half.	6.2	7.3	7.4	-5.1	6.8	5.9	1.5	7.3

1/ Change in calculation in 1983--housing costs measured in rental equivalence (what owners would have to pay if they rented their homes).

Source: U.S. Department of Labor, Bureau of Labor Statistics.

4. EMPLOYMENT

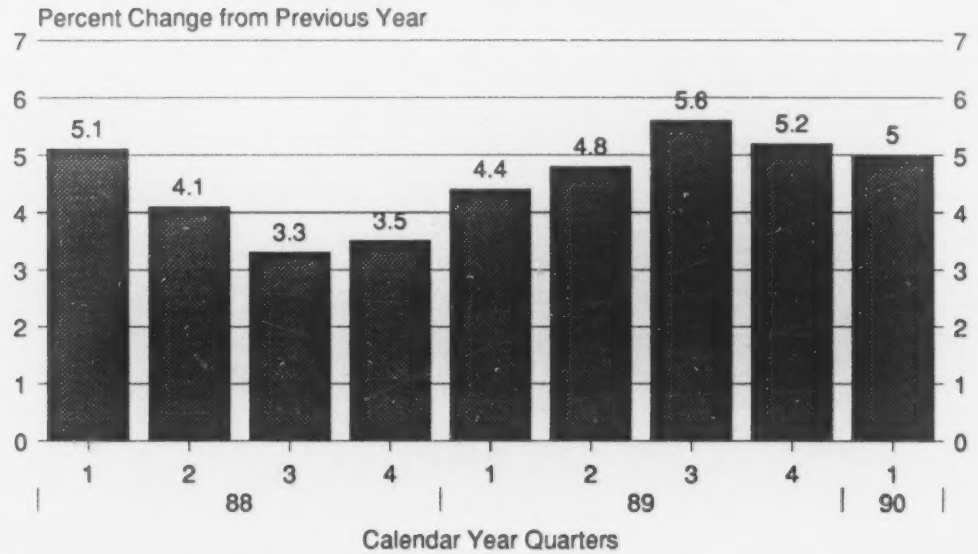
Hawaii's 2.6 percent unemployment rate for 1989 was the lowest annual rate since the current method of estimation was started in 1970. The total job count for 1989 rose 5.0 percent from the previous year. The preliminary estimate for the first quarter of 1990 indicates a continuation of this trend with the rate of growth remaining at 5.0 percent.

In the first quarter of 1990, the statewide unemployment rate rose slightly to 3.0 percent, still one of the lowest rates in the country. By county, Oahu continues to have the lowest rate at 2.4 percent while Hawaii County's 4.5 percent rate was the highest--still lower than the 5.2 percent rate for the nation.

The number of persons unemployed rose to 15,900 in the first quarter of 1990 but the labor market remained tight.

Figure 4-1

GROWTH IN TOTAL JOBS, QUARTERLY: 1988 TO 1990



SOURCE: Based on Data from the Dept. of Labor and Industrial Relations

Table 4-1
CIVILIAN LABOR FORCE AND EMPLOYMENT, BY COUNTY: 1980 TO 1990

[Number of persons]

Subject and year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
Civilian labor force:					
1980	440,000	338,350	43,550	19,550	37,550
1981	451,000	345,700	45,450	20,100	39,800
1982	461,000	350,100	47,200	20,800	42,850
1983	472,000	357,100	48,350	21,650	44,850
1984	472,000	357,100	48,650	21,300	44,950
1985	479,000	359,600	50,400	22,050	46,950
1986	492,000	368,700	51,300	23,400	48,600
1987	514,000	383,400	54,050	24,900	51,600
1988	518,000	383,750	54,500	26,000	53,750
1989	525,000	384,500	56,900	26,600	55,000
1989: 1 Q	518,800	380,800	56,300	27,150	54,600
2 Q	526,350	385,950	57,150	27,550	55,750
3 Q	522,900	382,850	57,200	27,750	55,100
4 Q	527,950	388,450	57,050	27,900	54,550
1990: 1 Q	529,450	390,000	57,400	27,650	54,400
Civilian employment:					
1980	418,000	322,800	40,850	18,700	35,650
1981	427,000	328,500	42,150	18,900	37,450
1982	430,000	328,600	42,700	19,150	39,550
1983	442,000	336,550	44,050	20,000	41,450
1984	445,000	338,050	44,900	19,800	42,250
1985	452,000	341,150	46,150	20,550	44,150
1986	468,000	352,500	47,500	22,000	46,050
1987	494,000	369,850	50,950	23,850	49,350
1988	502,000	373,150	51,800	25,050	52,000
1989	511,000	375,950	54,700	26,800	53,550
1989: 1 Q	504,450	371,500	53,750	26,200	53,000
2 Q	511,650	376,350	54,450	26,700	54,150
3 Q	512,950	376,200	55,450	27,250	54,100
4 Q	514,950	379,650	55,200	27,050	53,000
1990: 1 Q	513,550	379,200	55,100	26,500	52,750

Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-2
CIVILIAN UNEMPLOYED AND UNEMPLOYMENT RATE, BY COUNTY: 1980 TO 1990

Subject and year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
Civilian unemployed (persons):					
1980	21,000	15,550	2,700	850	1,900
1981	24,000	17,150	3,350	1,150	2,350
1982	31,000	21,500	4,500	1,700	3,300
1983	30,000	20,600	4,350	1,650	3,400
1984	27,000	19,100	3,700	1,500	2,700
1985	27,000	18,450	4,250	1,500	2,800
1986	24,000	16,200	3,850	1,400	2,550
1987	20,000	13,550	3,100	1,100	2,250
1988	16,000	10,600	2,700	950	1,750
1989	13,000	8,550	2,200	800	1,450
1989: 1 Q	14,400	9,300	2,550	950	1,600
2 Q	14,700	9,550	2,700	800	1,600
3 Q	9,950	6,600	1,750	550	1,000
4 Q	12,950	8,800	1,800	800	1,500
1990: 1 Q	15,900	10,750	2,350	1,150	1,650
Unemployment rate (percent):					
1980	4.9	4.6	6.2	4.2	5.1
1981	5.4	5.0	7.3	5.8	5.9
1982	6.7	6.1	9.6	8.1	7.7
1983	6.5	5.8	9.0	7.7	7.6
1984	5.6	5.3	7.7	7.0	6.0
1985	5.6	5.1	8.5	6.8	5.9
1986	4.8	4.4	7.5	5.9	5.3
1987	3.8	3.5	5.8	4.3	4.4
1988	3.2	2.8	4.9	3.7	3.3
1989	2.6	2.2	3.9	2.8	2.6
1989: 1 Q	2.8	2.4	4.5	3.5	2.9
2 Q	2.8	2.5	4.7	2.9	2.9
3 Q	1.9	1.7	3.1	2.0	1.8
4 Q	2.5	2.3	3.2	2.9	2.7
1990: 1 Q	3.0	2.8	4.1	4.2	3.0

Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-3
TOTAL JOBS: 1980 TO 1990

Year	Total jobs 1/	Nonagriculture			Agriculture			Labor disputes
		Total	Wage & salary	Self-employed	Total	Wage & salary	Self-employed	
1980	448,150	432,400	404,100	28,300	15,400	10,800	4,600	500
1981	449,900	433,950	404,800	29,150	15,850	11,500	4,350	50
1982	446,050	430,700	399,400	31,300	15,250	11,300	4,000	100
1983	453,750	438,500	406,200	32,300	15,100	11,200	3,900	150
1984	461,000	446,100	412,650	33,450	14,450	10,800	3,650	450
1985	473,150	459,150	425,750	33,400	13,900	10,400	3,500	100
1986	486,850	473,300	438,550	34,750	13,350	10,150	3,200	200
1987 2/	504,950	490,700	459,950	30,700	14,220	10,550	3,700	50
1988	524,500	510,800	478,050	32,750	13,600	10,000	3,600	100
1989	551,150	538,050	504,800	33,250	13,100	9,600	3,500	-
1988: 1 Q	514,250	501,000	470,400	30,600	13,200	9,750	3,450	50
2 Q	524,400	511,200	476,900	34,300	13,150	9,700	3,450	50
3 Q	524,850	510,600	476,750	33,850	14,150	10,500	3,650	100
4 Q	534,250	520,400	488,200	32,200	13,700	9,950	3,750	150
1989: 1 Q	539,200	526,650	495,450	31,200	12,550	9,250	3,300	-
2 Q	549,800	536,600	503,050	33,550	13,200	9,700	3,500	-
3 Q	553,900	540,050	505,400	34,650	13,850	10,150	3,700	-
4 Q	561,850	548,900	515,250	33,650	12,950	9,350	3,600	-
1990: 1 Q (p)	565,900	551,500	515,250	36,250	11,950	8,900	3,050	2,450
	Percent change from the same period in previous year							
1980	3.2	3.4	2.6	16.2	1.1	0.5	2.2	-28.6
1981	0.3	0.4	0.2	3.0	2.9	8.4	-5.4	-90.0
1982	-0.9	-0.7	-1.3	7.4	-3.8	-2.2	-9.2	100.0
1983	1.7	1.8	1.7	3.2	-1.3	-0.9	-1.3	50.0
1984	1.6	1.7	1.6	3.6	-4.0	-3.6	-6.4	200.0
1985	2.6	2.9	3.2	-0.2	-3.8	-3.5	-4.4	-77.8
1986	2.9	3.1	3.0	4.0	-4.0	-2.4	-8.6	85.7
1987	(NC)	(NC)	4.9	(NC)	6.5	3.9	15.3	-75.0
1988	3.9	4.1	3.9	6.7	-4.4	-5.2	-2.7	100.0
1989	5.1	5.3	5.6	1.5	-3.7	-4.0	-2.8	-100.0
1989: 1 Q	4.9	5.1	5.3	2.0	-4.9	-5.1	-4.3	-100.0
2 Q	4.8	5.0	5.5	-2.2	0.4	0.0	1.4	-100.0
3 Q	5.5	5.8	6.0	2.4	-2.1	-3.3	1.4	-100.0
4 Q	5.2	5.5	5.5	4.5	-5.5	-6.0	-4.0	-100.0
1990: 1 Q (p)	5.0	4.7	4.0	16.2	-4.8	-3.8	-7.6	1,000.0

p Preliminary.
NC Not comparable.
1/ Total of wage and salary jobs and self-employed in agricultural and nonagricultural industries plus those jobs involved in labor disputes.
2/ Revision in methodology affecting non-agricultural self-employed from 1987. Data and subtotals not comparable to previous years.
Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-4
NUMBER OF JOBS, BY INDUSTRY: 1988 TO 1990

Series	1988	1989	1 Q 1990(p)	Percent change from previous year		
				1988	1989	1 Q 1990
Total jobs 1/	524,500	551,150	565,900	3.9	5.1	5.0
Non-agricultural wage and salary jobs	478,050	504,800	515,250	3.9	5.6	4.0
Construction	23,400	29,200	30,050	10.4	24.8	13.4
Manufacturing	22,000	21,300	20,650	0.5	-3.2	-4.4
Durable goods	4,250	4,200	4,100	7.6	-1.2	-3.2
Nondurable goods	17,750	17,100	16,600	-1.1	-3.7	-4.7
Food processing	9,950	9,350	8,950	0.0	-6.0	-6.9
Sugar processing	2,850	2,500	2,550	-6.6	-12.3	-4.9
Pineapple processing	2,050	1,750	1,400	0.0	-14.6	-20.8
Other food processing	5,050	5,100	5,000	5.2	1.0	-3.5
Transportation, commun., utilities	38,000	40,200	41,550	3.3	5.8	6.5
Trade	127,450	132,950	134,650	3.0	4.3	3.2
Wholesale	20,750	21,950	22,450	1.7	5.8	4.7
Retail	106,750	111,000	112,200	3.2	4.0	2.9
Finance, insurance, real estate	34,450	35,100	35,550	2.2	1.9	2.5
Services	133,250	144,600	148,650	5.3	8.5	5.1
Hotels	34,350	37,000	37,450	9.9	7.7	1.6
Government	99,500	101,450	104,050	3.6	2.0	2.3
Federal	33,800	33,850	33,300	3.0	0.1	-1.6
State	51,850	53,550	56,900	3.9	3.3	4.8
Local	13,850	14,100	13,900	3.4	1.8	2.0
Agriculture (wage & salary)	10,000	9,600	8,900	-5.2	-4.0	-3.8
Sugar	3,700	3,300	3,050	-2.6	-10.8	-9.9
Pineapple	1,750	1,850	1,650	-7.9	5.7	7.5
Diversified agriculture	4,550	4,500	4,150	-5.2	-1.1	-3.1
Nonagric. self-employed 2/	32,750	33,250	36,250	6.7	1.5	16.2
Agricultural self-employed 2/	3,600	3,500	3,050	-2.7	-2.8	-7.6
Labor disputes	100	-	2,450	100.0	-100.0	1,000.0

p Preliminary.
1/ Total of nonagricultural and agricultural wage and salary, self-employed, and jobs involved in labor disputes.
2/ Self-employed includes unpaid family workers and domestics.
Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-5
NON-AGRICULTURAL WAGE AND SALARY JOBS, BY COUNTY: 1980 TO 1990

Year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
1980	404,100	333,050	28,450	15,150	27,500
1981	404,800	332,300	28,850	15,200	28,450
1982	399,400	325,700	28,700	15,150	29,900
1983	406,200	330,100	29,350	15,700	31,050
1984	412,650	334,400	30,400	15,700	32,150
1985	425,750	342,300	32,250	16,700	34,550
1986	438,550	351,450	33,150	17,900	36,050
1987	459,950	366,550	35,300	19,300	38,850
1988	478,050	378,150	37,100	21,000	41,850
1989	504,800	395,600	41,050	23,350	44,750
1989: 1 Q	495,450	388,500	40,100	22,750	44,100
2 Q	503,050	394,200	40,700	23,150	45,000
3 Q	505,400	395,350	41,400	23,650	45,000
4 Q	515,250	404,400	42,000	23,900	45,000
1990: 1 Q (p)	515,250	403,850	42,400	23,550	45,400
	Percent change from same period in previous year				
1980	2.6	2.2	2.9	6.1	4.3
1981	0.2	-0.2	1.4	0.6	3.5
1982	-1.3	-2.0	-0.5	-0.6	5.0
1983	1.7	1.4	2.3	3.9	4.0
1984	1.6	1.3	3.6	0.1	3.5
1985	3.2	2.4	6.0	6.1	7.4
1986	3.0	2.7	2.9	7.2	4.4
1987	4.9	4.3	6.4	7.9	7.8
1988	3.9	3.2	5.1	8.8	7.7
1989	5.6	4.6	10.6	11.2	6.9
1989: 1 Q	5.3	4.2	11.3	11.3	7.3
2 Q	5.5	4.3	11.8	11.1	8.3
3 Q	6.0	4.9	11.6	12.3	7.4
4 Q	5.5	5.1	8.2	10.1	5.1
1990 : 1 Q (p)	4.0	3.9	5.8	3.5	3.0

p Preliminary.
Source: Hawaii State Department of Labor and Industrial Relations.

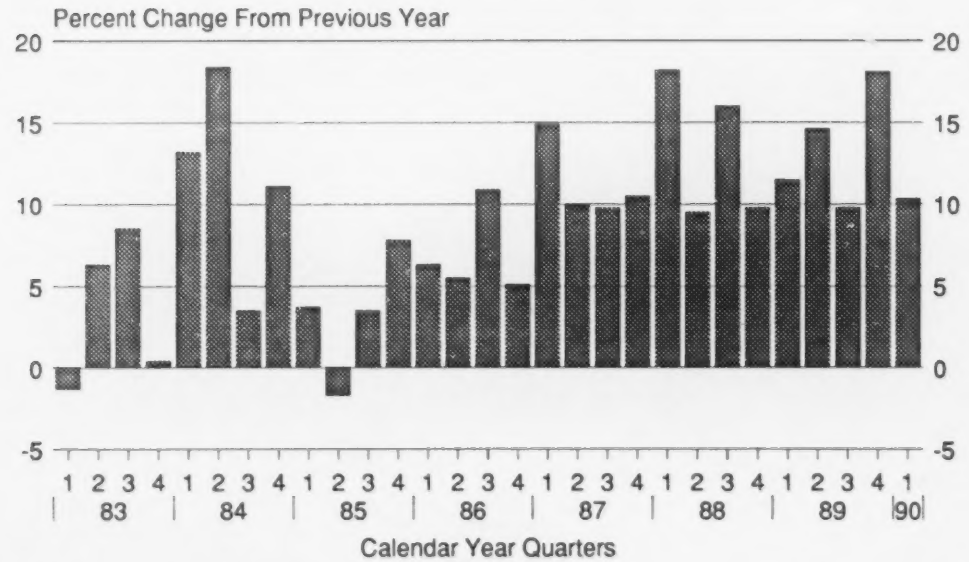
5. BUSINESS ACTIVITY

The continuing strength of the State's economy was reflected by the 10.3 percent increase in total taxable transactions in the first quarter of 1990. This followed on the heels of three consecutive years of double-digit growth.

According to a survey of business leaders (Table 5-4) almost 55 percent anticipated an improvement in the overall economy in Hawaii during 1990, with only 7 percent anticipating a decline.

State excise and use tax collections continued double-digit percent gains in the first quarter of 1990. General excise and use taxes, which include taxes paid by industries such as construction, trade, and services, rose by 15.6 percent during this period as compared to the first quarter of 1989. Net individual income tax and net corporate income tax, however, declined by 1.7 percent and 4.3 percent, respectively.

Figure 5-1
GROWTH IN TAXABLE BUSINESS TRANSACTIONS, QUARTERLY: 1983 TO 1990



SOURCE: Based on data from Dept of Taxation.

Table 5-1
VALUE OF BUSINESS TRANSACTIONS SUBJECT TO STATE EXCISE AND USE TAX: 1982 TO 1990

[Millions of dollars]

Year	Total taxable transactions	Selected industry transactions				
		Retailing	Services	Hotel rental	Diversified agriculture	Manufacturing 1/
1982	20,722.1	7,043.6	1,976.2	875.5	176.8	544.3
1983	21,416.8	7,458.8	2,128.5	858.2	221.6	502.3
1984	23,879.9	8,182.7	2,396.1	1,008.6	257.6	530.1
1985	24,630.3	8,605.2	2,529.7	1,153.4	251.6	538.3
1986	26,335.2	9,206.7	2,786.1	1,227.2	258.8	565.4
1987	29,232.3	10,010.4	3,057.4	1,434.8	264.1	588.3
1987 2/	28,072.4	9,356.7	2,856.2	1,346.5	264.1	588.3
1988	31,833.9	10,501.7	3,337.6	1,429.3	308.2	606.7
1989	36,106.5	11,693.5	3,611.5	1,486.5	319.0	657.9
1 Q	9,311.7	3,098.4	957.3	418.1	89.5	183.1
2 Q	8,909.5	2,851.3	934.3	357.0	79.6	161.1
3 Q	8,932.5	2,948.5	907.7	376.0	72.0	158.7
4 Q	8,952.8	2,795.3	912.2	335.4	77.9	155.0
1990 1 Q	10,271.8	3,351.3	1,095.2	450.9	93.6	172.8
	Percent change from same period in previous year					
1982	3.4	5.3	10.3	15.3	2.0	-11.6
1983	-0.9	5.9	7.7	-2.0	25.3	-7.7
1984	11.5	9.7	12.6	17.5	16.2	5.5
1985	3.1	5.2	5.6	14.4	-2.4	1.5
1986	6.9	7.0	10.1	6.4	2.9	5.0
1987	11.0	8.7	9.7	16.9	2.1	4.0
1988	13.4	12.2	16.9	6.1	16.7	3.1
1989	13.4	11.3	8.2	4.0	3.5	8.4
1 Q	11.5	10.6	13.6	-0.8	5.0	17.4
2 Q	14.6	9.9	11.4	7.5	4.3	0.2
3 Q	9.8	9.4	10.0	4.8	1.0	8.9
4 Q	18.1	16.0	9.8	5.9	3.3	7.5
1990 1 Q	10.3	8.2	14.4	7.8	4.6	-5.6

Note: This series derived by lagging reported excise tax base data one month to adjust for reporting delay.

1/ Excludes sugar processing and pineapple canning. Manufacturing goods shipped out of State have been exempted from the general excise tax by Act 239, SLH 1987, effective January 1, 1989.

2/ The Department of Taxation has revised the method of reporting the taxable base by industry. Before 1988, nonspecified industry transactions were allocated to five major tax activities--retailing, services, contracting, hotel rentals, and all other rentals. Data for 1987 show results of both methods. Percentages are based on comparable series.

Source: Hawaii State Department of Taxation.

Table 5-2
COLLECTIONS OF SELECTED STATE TAXES AND GENERAL FUND TAX REVENUES: 1982 TO 1990

[Thousands of dollars]

Year	General excise and use tax 1/	Net individual income tax 2/	Net corporate income tax 3/	Tax revenues distributed to State General Fund 4/
1982	574,590	296,757	34,785	1,011,465
1983	615,536	358,072	27,960	1,109,876
1984	669,805	413,885	39,681	1,240,352
1985	707,381	446,358	44,075	1,325,791
1986	777,961	490,185	46,216	1,486,484
1987	869,039	574,729	67,272	1,731,226
1988	965,953	680,789	63,094	1,949,103
1989	1,096,476	801,999	72,677	2,157,005
1 Q	270,801	205,080	23,520	554,240
2 Q	270,683	211,019	24,710	593,091
3 Q 4/	272,645	176,719	18,756	441,009
4 Q	282,347	209,182	5,690	568,663
1990: 1 Q	313,128	201,604	22,506	595,969
	Percent change from same period in previous year			
1982	-0.1	-15.1	-20.2	-5.5
1983	7.1	20.7	-19.6	9.7
1984	8.8	15.6	41.9	11.8
1985	5.6	7.8	11.1	6.9
1986	10.0	9.8	4.9	12.1
1987	11.7	17.2	45.6	16.5
1988	11.2	18.5	-6.2	12.6
1989	13.5	17.8	15.2	10.7
1 Q	12.6	28.7	29.7	18.9
2 Q	11.9	24.1	18.5	15.3
3 Q 4/	13.0	4.6	15.6	-8.8
4 Q	16.6	14.6	-27.8	17.3
1990: 1 Q	15.6	-1.7	-4.3	7.5

Note: This series represents data as reported by the Department of Taxation, without adjustment.

1/ Manufactured goods shipped out of State have been exempted from the general excise tax by Act 239, SLH 1987, effective January 1, 1988.

2/ Declaration of estimated taxes, plus payments with returns, plus withholding tax on wages, less refunds.

3/ Declaration of estimated taxes, plus payments with returns, less refunds.

4/ Excludes non-tax sources. The State General Fund for the 3rd quarter declined due to a new $90 million allocation to the State Education Special Fund. Act 368 adopted by the 1989 State Legislature requires allocation of $90 million annually. Without this special allocation, general fund would have increased by 9.8 percent.

Source: Hawaii State Department of Taxation.

Table 5-3.-- DEFENSE EXPENDITURES BY SERVICE: 1980 TO 1989

[Millions of dollars]

Year or quarter	Total	Navy and Marine 1/	Army	Air Force	Coast Guard
1980	1,317.4	711.3	441.8	141.7	22.7
1981	1,449.3	770.4	493.8	158.3	26.7
1982	1,693.4	878.2	611.5	173.7	29.9
1983	1,848.2	935.9	702.7	182.6	27.0
1984	1,867.2	948.2	685.2	207.6	26.2
1985	1,965.4	955.3	780.4	201.0	28.7
1986	1,784.9	892.0	658.6	202.4	31.9
1987	1,857.0	871.5	744.3	212.4	28.8
1988	1,892.4	780.3	857.2	224.6	30.3
1989	2,038.2	860.2	924.0	223.2	30.9e
1989: 1 Q	493.5	207.8	223.0	55.1	7.6
2 Q	485.2	193.1	226.9	57.4	7.7
3 Q	551.8	240.5	242.7	60.9	7.8
4 Q	507.7	218.7	231.4	49.8	7.8e
	Percent change from same period in previous year				
1980	7.8	11.0	2.8	9.6	2.7
1981	10.0	8.3	11.8	11.7	17.6
1982	16.8	14.0	23.8	9.7	12.0
1983	9.1	6.6	14.9	5.1	-9.7
1984	1.0	1.3	-2.5	13.7	-2.7
1985	5.3	0.7	13.9	-3.1	9.6
1986	-9.2	-6.6	-15.6	0.7	11.1
1987	4.0	-2.3	13.0	4.9	-10.0
1988	1.9	-10.5	15.2	5.7	5.6
1989	NC	NC	7.8	-0.6	-
1989: 1 Q	5.4	7.0	6.7	-4.9	10.8
2 Q	3.4	-0.8	8.4	1.2	-8.4
3 Q	NC	NC	8.8	5.9	4.0
4 Q	NC	NC	7.2	-5.0	4.0

e Estimated.

NC Not comparable.

1/ Since December 1985, Navy data partly estimated due to change in reporting method and may not reflect all local purchases.

Source: Quarterly reports from armed forces, compiled by DBED.

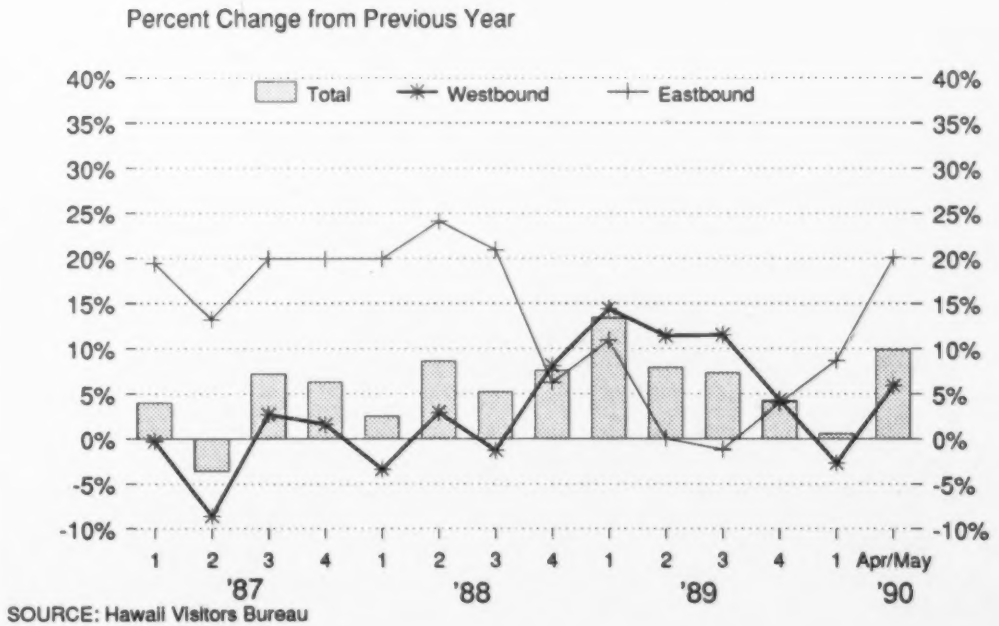
6. THE VISITOR INDUSTRY

The estimated visitor count for 1989 indicate totals well above the 3 to 5 percent increases projected by HVB at the beginning of the year. An estimated 6.6 million tourists visited the State in 1989, a gain of 8.1 percent over 1988. The jump was due to the resurgence of the westbound market, consisting of arrivals from the mainland, Canada, and Europe, which increased 10.3 percent to 4.6 million. The mainland count for 1989 was 3.9 million, up 9.6 percent, with 1.3 million coming from California, an increase of 13.6 percent.

Preliminary counts of visitors for the first quarter of 1990 showed a slowing in the growth rate from the same 1989 period. The total visitor count rose an estimated 0.9 percent over the first quarter of 1989. While westbound travelers (from the U.S. Mainland, Canada and Europe) declined by 2.7 percent, the decline was more than offset by a 9.9 percent increase in eastbound visitors, primarily from Japan and other parts of Asia.

Hawaii County was the only county to show an increase in westbound visitors in the first quarter of 1990.

Figure 6-1
GROWTH IN VISITOR ARRIVALS, QUARTERLY: 1987 TO 1990



SOURCE: Hawaii Visitors Bureau

Table 6-1
VISITOR ARRIVALS AND AVERAGE DAILY VISITOR CENSUS: 1980 TO 1990

Year 1/	Visitors staying overnight or longer			Average daily visitor census	
	Total	Westbound 2/	Eastbound 3/	Westbound 2/	All
1980	3,934,504	3,046,132	888,372	86,788	96,497
1981	3,934,623	2,974,791	959,832	85,449	95,968
1982	4,242,925	3,278,525	964,400	94,740	105,310
1983	4,368,105	3,396,115	971,990	97,390	108,040
1984	4,855,580	3,721,380	1,134,200	106,260	118,660
1985	4,884,110	3,708,610	1,175,500	103,820	116,700
1986	5,606,980	4,256,390	1,350,590	118,110	132,900
1987	5,799,830	4,204,010	1,595,820	116,780	134,300
1988	6,142,420	4,264,730	1,877,690	115,760	141,410
1989	6,641,820	4,705,320	1,936,500	[illegible]00	169,700
1990 (Jan-May)	2,795,550	1,931,910	863,640	(NA)	(NA)
1989: 1 Q	1,683,690	1,198,640	485,050	(NA)	(NA)
2 Q	1,605,100	1,145,550	459,550	(NA)	(NA)
3 Q	1,754,760	1,213,730	541,030	(NA)	(NA)
4 Q	1,598,270	1,147,400	450,870	(NA)	(NA)
1990: 1 Q (p)	1,693,250	1,166,010	527,240	(NA)	(NA)
April-May	1,102,300	765,900	336,400	(NA)	(NA)
	Percent change from corresponding period in previous year				
1980	-0.7	-3.0	8.2	-3.2	-2.2
1981	0.0	-2.3	8.0	-1.5	-0.5
1982	7.8	10.2	0.5	10.9	9.7
1983	3.0	3.6	0.8	2.8	2.6
1984	11.2	9.6	16.7	9.1	9.8
1985	0.6	-0.3	3.6	-2.3	-1.7
1986	14.8	14.8	14.9	13.9	13.9
1987	3.4	-1.2	18.2	-1.1	1.1
1988	5.9	1.4	17.7	-0.9	5.3
1989	8.1	10.3	3.1	17.1	20.0
1990 (Jan-May)	4.0	0.5	12.9	(NA)	(NA)
1989: 1 Q	13.4	14.4	10.9	(NA)	(NA)
2 Q	7.9	11.4	0.0	(NA)	(NA)
3 Q	7.3	11.5	-1.2	(NA)	(NA)
4 Q	4.2	4.3	4.0	(NA)	(NA)
1990: 1 Q (p)	0.6	-2.7	8.7	(NA)	(NA)
April-May	9.9	5.9	20.1	(NA)	(NA)

NA Not available.
p Preliminary.
1/ Beginning in 1984, sample size reduced from 20 to 10 percent and numbers rounded to the nearest 10.
2/ Arriving from the Mainland United States or Canada.
3/ Arriving from the Orient and Pacific areas.
Source: Hawaii Visitors Bureau.

Table 6-2
WESTBOUND VISITORS, BY COUNTY: 1981 TO 1990

Year 1/	City and County of Honolulu	Hawaii County	Maui County	Kauai County
1981	2,398,477	672,683	1,389,892	757,811
1982	2,589,190	678,170	1,550,080	733,295
1983	2,591,575	712,380	1,644,605	691,940
1984	2,901,320	760,940	1,854,690	814,590
1985	2,828,640	697,380	1,831,110	832,580
1986	3,146,030	786,930	2,003,870	1,014,650
1987	3,078,500	782,550	1,908,780	1,032,840
1988	3,013,860	782,360	1,884,050	1,043,710
1989	3,205,800	946,540	2,113,100	1,138,230
1990 (Jan-May)	1,264,040	406,810	816,780	441,250
1989: 1 Q	796,190	235,710	546,150	284,870
2 Q	775,180	224,700	534,200	288,800
3 Q	850,350	246,810	539,360	299,240
4 Q	784,080	239,320	493,390	265,320
1990: 1 Q (p)	755,370	254,640	484,610	254,780
April-May	508,670	152,170	332,170	186,470
	Percent change from corresponding period in previous year			
1982	8.0	0.8	11.5	-3.2
1983	0.1	5.0	6.1	-5.6
1984	12.0	6.8	12.8	17.7
1985	-2.5	-8.4	-1.3	2.2
1986	11.2	12.8	9.4	21.9
1987	-2.1	-0.6	-4.7	1.8
1988	-2.1	-0.0	-1.3	1.1
1989	6.4	21.0	12.2	9.1
1990 (Jan-May)	-0.4	8.0	-8.1	-4.5
1989: 1 Q	10.9	17.8	15.1	11.3
2 Q	5.7	28.1	15.1	13.6
3 Q	6.7	32.6	12.9	11.1
4 Q	2.5	8.4	5.5	0.5
1990: 1 Q (p)	-5.1	8.0	-11.3	-10.6
April-May	7.6	8.0	3.0	5.2

p Preliminary.
1/ Beginning in 1984, sample size changed from 20 to 10 percent
Source: Hawaii Visitors Bureau.

Table 6-3
AVERAGE DAILY HOTEL ROOM RATES, BY ISLANDS: 1980 TO 1990

[Dollars]

Year	State	Oahu	Hawaii	Maui	Kauai	Molokai
1980	47.37	42.70	46.40	61.34	55.16	(NA)
1981	49.87	43.16	47.16	73.44	56.06	(NA)
1982	51.78	44.60	47.37	75.02	58.48	(NA)
1983	55.58	47.62	50.49	81.60	59.75	(NA)
1984	59.25	49.45	57.17	88.89	65.05	(NA)
1985	65.66	57.00	65.35	96.75	69.51	(NA)
1986	72.67	61.99	73.88	115.33	71.56	56.73
1987	80.09	69.04	82.21	127.05	81.65	64.26
1988	87.25	75.16	87.28	133.70	89.44	59.06
1989	95.83	84.48	121.27	133.65	92.77	66.38
1990 (Jan-Apr)	110.22	98.54	137.05	143.90	98.16	70.31
	Percent change from previous year					
1980	6.7	3.1	12.0	7.3	15.5	(NA)
1981	5.2	1.1	1.6	19.7	1.6	(NA)
1982	3.8	3.8	0.4	2.2	4.3	(NA)
1983	7.4	6.3	6.6	8.8	2.2	(NA)
1984	6.6	3.8	13.2	8.9	8.9	(NA)
1985	10.8	15.3	14.3	8.8	6.9	(NA)
1986	11.5	9.0	15.1	17.5	8.4	(NA)
1987	10.2	11.4	11.3	10.2	14.1	13.3
1988	8.9	8.9	6.2	5.2	9.5	-8.1
1989	9.8	12.4	38.9	-0.0	3.7	12.4
1990 (Jan-Apr)	8.8	11.3	21.4	-1.3	-5.0	1.1

NA Not available.
Source: Pannell Kerr Forster & Company, *Trends in the Hotel Industry, Hawaii.*

Table 6-4
HOTEL OCCUPANCY RATES BY AREA: 1986 TO 1990

[Percent; survey excludes some large hotel chains]

Date	State	Oahu	Hawaii	Maui Island	Kauai	Molokai
1986	81.2	85.2	62.2	82.7	76.7	50.3
1987	81.1	86.8	60.8	76.2	74.2	45.4
1988	78.5	85.4	56.4	73.4	66.9	45.3
1989	79.0	86.4	60.8	69.2	71.3	45.4
1990 (Jan-Apr)	82.0	89.0	69.4	73.9	68.2	61.5
1988:						
January	76.7	84.9	58.1	67.2	58.4	50.1
February	86.5	92.0	70.8	81.9	74.1	58.7
March	82.4	87.6	59.3	82.0	72.0	51.3
April	74.0	78.2	54.5	76.7	63.7	38.6
May	73.3	79.5	46.2	70.7	67.5	40.5
June	77.7	86.9	48.2	70.5	62.8	34.4
July	81.2	90.2	55.0	72.2	66.9	40.1
August	86.7	93.8	64.2	82.0	74.4	43.8
September	76.1	85.2	47.5	65.8	67.3	40.4
October	80.4	85.7	59.6	76.3	76.1	50.2
November	74.5	80.5	55.8	69.4	64.7	52.5
December	70.5	78.3	55.2	61.8	53.1	41.0
1989:						
January	82.8	92.6	61.2	68.8	66.4	56.1
February	90.0	95.2	72.2	85.1	83.8	61.8
March	85.0	91.2	64.0	79.8	75.3	51.3
April	74.1	77.6	64.5	72.1	69.1	44.5
May	70.9	76.9	55.3	64.0	65.1	42.8
June	76.8	87.6	52.5	60.4	67.8	34.5
July	80.9	88.8	63.8	69.5	73.8	38.4
August	86.6	94.2	67.6	74.2	84.1	44.8
September	75.5	85.1	51.0	60.6	67.4	42.3
October	75.6	81.0	59.6	67.7	73.9	44.3
November	77.7	84.1	60.6	69.2	70.5	46.2
December	74.0	83.1	58.0	60.2	58.1	38.9
1990:						
January	80.9	90.7	70.7	67.3	59.1	59.4
February	88.8	95.3	76.9	81.6	76.4	78.1
March	82.4	88.7	64.5	78.0	71.0	56.2
April	76.2	82.5	60.8	69.4	67.9	53.4

Source: Pannell Kerr Forster & Company, *Trends in the Hotel Industry, Hawaii.*

Table 6-5
VISITOR ACCOMMODATIONS IN HAWAII, BY TYPE: 1977 TO 1989

[As of February]

Year and island	Properties			Units		
	Total	Hotels 1/	Condo-miniums 2/	Total	Hotels 1/	Condo-miniums 2/
1977	335	(NA)	(NA)	44,986	39,901	5,085
1978	353	(NA)	(NA)	47,070	40,001	7,069
1979	381	(NA)	(NA)	49,832	41,299	8,533
1980	387	(NA)	(NA)	54,246	42,609	11,637
1981	412	214	198	56,769	42,575	14,194
1982	417	208	209	57,968	43,568	14,400
1983	426	218	208	58,765	45,352	13,413
1984	443	209	234	62,448	44,846	17,602
1985	481	207	274	65,919	44,115	21,804
1986	523	201	322	66,308	43,309	22,999
1987	510	196	314	65,318	43,422	21,896
1988	481	203	278	69,012	47,892	21,120
1989	455	194	261	68,189	48,970	19,219
ISLANDS: 1989						
Oahu	159	103	56	36,739	30,808	5,931
Waikiki 3/	131	83	48	32,743	27,549	5,194
Rest of Oahu	28	20	8	3,996	3,259	737
Other islands	296	91	205	31,450	18,162	13,288
Hawaii	72	30	42	8,171	6,004	2,167
Kauai	73	27	46	7,251	4,319	2,932
Maui	143	31	112	15,444	7,503	7,941
Molokai	7	2	5	574	326	248
Lanai	1	1	-	10	10	-

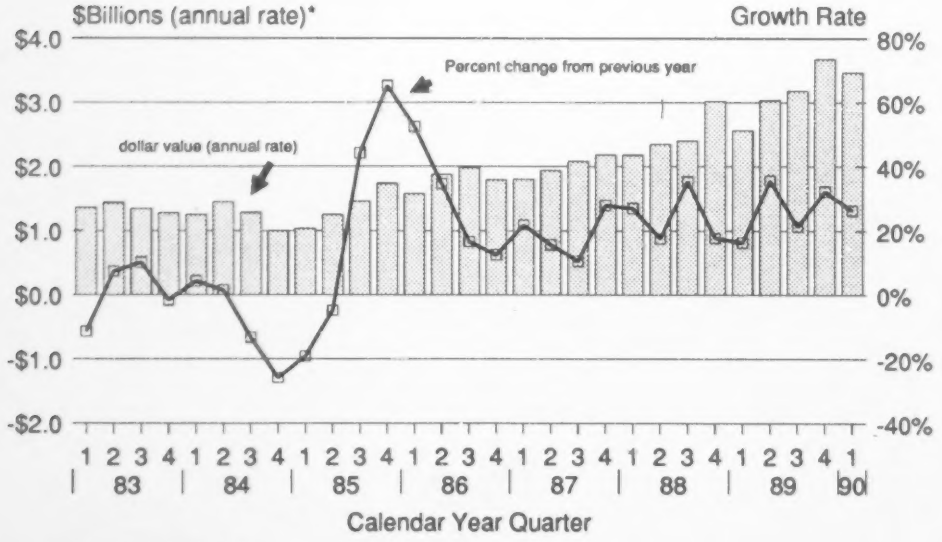
NA Not available.
1/ Hotels, apartment hotels, motels, and cottages.
2/ Condominium accommodations in rental pools for transient use.
3/ Includes Diamond Head and Kahala but not areas ewa and mauka (west and north) of the Ala Wai Canal.
Source: Hawaii Visitors Bureau, *Visitor Plant Inventory*, 1977 to 1989.

7. CONSTRUCTION

One of the major contributors to Hawaii's continued strong economic growth has been the construction industry. Final figures for 1989 show the value of construction completed exceeded $3.1 billion. Figures for the first quarter of 1990 show continued strength with the value of construction completed up 26.3 percent from the same period in 1989.

The construction boom may soon reach its peak, however. Total private authorizations slowed to a 7 percent increase for the first five months of 1990, while new government contracts awarded showed a sharp 29 percent decline for the same period. When combined, the new authorizations for both public and private construction showed only a 0.6 percent increase for the first five months. Construction is expected to remain strong through the remainder of 1990, and more data are necessary before any conclusions can be reached concerning future trends.

Figure 7-1
GROWTH IN CONSTRUCTION EXPENDITURES, QUARTERLY: 1983 TO 1990



*Each quarterly total is multiplied by 4
SOURCE: Based on data from the Dept. of Taxation. Excludes March 1990.

Table 7-1
ESTIMATED VALUE OF COMPLETED CONSTRUCTION, NEW PRIVATE BUILDING AUTHORIZATIONS, AND GOVERNMENT CONTRACTS AWARDED: 1985 TO 1990

[Millions of dollars]

Year	Value of construction completed 1/	Private building authorizations				Government contracts awarded
		Total private authorization	Residential	Commercial and industrial 2/	Additions and alterations	
1985	1,429.6	889.0	500.1	208.8	180.1	248.5
1986	1,810.0	1,024.1	455.5	266.3	302.3	425.1
1987	2,145.5	1,161.9	507.0	344.4	310.5	372.2
1988	2,529.0	1,540.3	686.0	538.9	315.4	654.3
1989	3,193.0	1,882.4	910.7	561.7	409.9	741.6
1990 (Jan-May) 3/	(NA)	779.9	451.7	130.4	197.8	186.7
1989: 1 Q	687.2	416 .9	169.0	150.9	97.1	182.4
2 Q	798.0	542.1	329.5	123.1	89.4	106.4
3 Q	846.5	536.2	240.6	161.0	134.6	154.6
4 Q	861.3	387.2	171.6	126.7	88.8	298.2
1990: 1 Q	868.2	422.4	244.9	78.6	98.9	133.7
April-May 3/	(NA)	357.4	206.8	51.8	98.9	53.1
	Percent change from corresponding period in previous year 4/					
1985	16.5	52.9	52.6	100.8	20.2	-39.6
1986	26.6	15.7	-10.6	32.7	68.7	71.1
1987	18.5	13.5	11.3	29.3	2.7	-12.4
1988	26.0	32.6	35.3	56.5	1.6	75.8
1989	26.3	22.2	32.8	4.2	30.0	13.3
1990 (Jan-May) 3/	(NA)	6.9	34.0	-45.9	30.9	-28.6
1989: 1 Q	16.3	31.3	25.1	34.5	38.5	46.7
2 Q	35.6	51.6	58.6	42.3	40.6	-3.6
3 Q	21.3	60.5	31.4	142.5	59.1	-25.4
4 Q	32.2	-27.1	7.1	-53.7	-8.6	40.3
1990: 1 Q	26.3	1.3	44.9	-47.9	1.9	-26.7
April-May 3/	(NA)	14.4	23.1	-42.5	81.8	-32.7

NA Not available.
1/ Value of construction subject to State excise tax, adjusted to reflect reporting delay of about one month.
2/ Includes hotels.
3/ Excludes April and May data for building authorizations in Maui County.
4/ Percent computations based on comparable periods and coverage.

Source: Hawaii State Department of Taxation; County building departments; Trade Publishing Company, *Building Industry Digest: BID Service Weekly.*

Table 7-2
ESTIMATED VALUE OF PRIVATE BUILDING CONSTRUCTION AUTHORIZATIONS, BY COUNTY: 1980 TO 1990

[Millions of dollars]

Year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
1980	1,219.2	686.3	146.0	133.3	253.7
1981	802.0	454.1	136.5	67.7	143.7
1982	683.1	473.0	75.2	44.2	90.7
1983	685.2	366.8	86.7	140.5	91.3
1984	581.5	378.3	90.3	53.0	59.8
1985	889.0	524.8	121.3	63.9	178.9
1986	1,024.1	545.3	231.5	93.2	154.1
1987	1,161.9	749.5	145.2	103.5	163.8
1988	1,540.3	743.1	175.0	213.7	408.5
1989	1,882.4	1,047.7	338.1	178.7	317.9
1990 (Jan-May) 1/	779.8	440.9	168.7	104.6	(NA)
1989: 1 Q	416.9	224.9	104.1	34.2	53.7
2 Q	542.1	331.5	72.9	33.5	104.3
3 Q	536.2	273.8	92.4	68.2	101.8
4 Q	387.2	217.6	68.6	42.8	58.1
1990: 1 Q	422.4	195.1	103.8	57.9	65.6
April-May 2/	357.4	245.8	64.9	46.7	(NA)
	Percent change from corresponding period in previous year 3/				
1980	39.4	36.9	30.1	17.1	72.0
1981	-34.2	-33.8	-6.5	-49.2	-43.4
1982	-14.8	4.2	-44.9	-34.7	-35.0
1983	0.3	-22.4	15.3	217.5	0.6
1984	-15.1	3.1	4.3	-62.3	-34.4
1985	52.9	38.7	34.3	20.5	199.0
1986	15.2	3.9	90.8	45.9	-13.9
1987	13.5	37.5	-37.3	11.0	6.3
1988	32.6	-0.9	20.5	106.5	149.4
1989	22.2	41.0	93.2	-16.4	-22.2
1990 (Jan-May) 1/	6.9	-5.5	8.1	9.0	22.2
1989: 1 Q	31.3	45.9	182.9	9.6	-43.6
2 Q	51.6	53.0	80.4	-4.3	59.0
3 Q	60.5	41.8	73.0	161.3	65.3
4 Q	-27.1	21.4	54.2	-64.7	-68.8
1990: 1 Q	1.3	-13.3	-0.3	69.2	22.2
April-May 2/	14.4	1.7	25.0	148.4	(NA)

NA Not available.
1/ Excludes April and May data for Maui County.
2/ Excludes Maui County.
3/ Percent computations based on comparable periods and coverage.
Source: County building departments.

Table 7-3
ESTIMATED VALUE OF GOVERNMENT CONSTRUCTION CONTRACTS AWARDED IN HAWAII, BY AWARDING AGENCY: 1980 TO 1990

[Millions of dollars]

Year	Total	Federal	State	County
1980	230.6	66.5	120.0	44.1
1981	427.5	176.1	180.5	70.9
1982	392.7	139.6	182.0	71.2
1983	277.9	84.7	126.8	66.4
1984	411.8	130.0	196.7	85.1
1985	248.5	74.8	93.8	79.9
1986	425.1	101.9	205.4	117.8
1987	372.2	107.9	174.2	90.1
1988	654.3	170.5	351.5	132.3
1989	741.6	135.1	400.3	206.2
1990 (Jan-May)	186.7	23.0	90.0	73.8
1989: 1 Q	182.4	36.2	64.6	81.7
2 Q	106.4	13.4	67.2	25.8
3 Q	154.6	24.4	76.6	53.6
4 Q	298.2	61.1	192.0	45.1
1990: 1 Q	133.7	21.0	62.0	50.7
April-May	53.1	2.0	28.0	23.1
	Percent change from corresponding period in previous year			
1980	-40.7	-37.1	-45.7	-28.8
1981	85.4	164.8	50.5	60.6
1982	-8.1	-20.7	0.8	0.4
1983	-29.3	-39.3	-30.3	-6.7
1984	48.2	53.4	55.1	28.2
1985	-39.6	-42.4	-52.3	-6.2
1986	71.1	36.2	119.1	47.4
1987	-12.4	5.9	-15.2	-49.3
1988	75.8	58.0	101.8	46.8
1989	13.3	-20.8	13.9	55.9
1990 (Jan-May)	-28.6	-43.8	-25.3	-26.2
1989: 1 Q	49.3	0.3	25.0	123.8
2 Q	-3.7	6.3	-25.7	248.6
3 Q	-25.3	-15.9	-51.1	149.3
4 Q	40.4	-34.1	263.6	-32.6
1990: 1 Q	-26.7	-42.0	-4.1	-37.9
April-May	-32.7	-57.2	-49.9	25.5

Source: Trade Publishing Co., *Building Industry Digest: BID Service Weekly*, and First Hawaiian Bank, Research Division.

Table 7-4
NUMBER OF SINGLE-FAMILY AND MULTI-FAMILY HOUSING UNITS AUTHORIZED BY COUNTY: 1980 TO 1990

Year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
Single-family and duplex units:					
1980	4,058	1,645	1,204	401	808
1981	2,649	728	1,048	409	464
1982	2,285	725	800	230	530
1983	3,417	1,627	938	291	561
1984	4,442	2,513	928	361	640
1985	4,951	2,436	1,046	453	1,016
1986	4,700	2,173	1,144	438	945
1987	6,066	2,870	1,442	599	1,155
1988	6,191	2,158	1,674	702	1,657
1989	6,846	2,105	2,690	881	1,170
1990 (Jan-May) 1/	2,769	1,098	857	460	(NA)
1989: 1 Q	1,474	557	483	141	293
2 Q	1,620	670	512	171	267
3 Q	1,993	654	810	253	276
4 Q	1,759	224	885	316	334
1990: 1 Q	1,922	722	527	319	354
April-May	847	376	330	141	(NA)
Multi-family units:					
1980	6,603	3,297	727	766	1,813
1981	3,142	1,873	270	64	935
1982	4,594	4,109	245	118	122
1983	1,341	1,220	38	73	10
1984	1,021	829	153	35	4
1985	2,450	1,807	128	84	431
1986	2,479	1,986	21	-	472
1987	1,459	785	138	-	536
1988	2,593	1,168	446	21	958
1989	2,939	1,762	363	30	784
1990 (Jan-May) 1/	799	341	452	6	(NA)
1989: 1 Q	309	216	87	6	-
2 Q	1,501	934	21	24	522
3 Q	664	308	204	-	152
4 Q	465	304	51	-	110
1990: 1 Q	495	107	388	-	-
April-May	304	234	64	6	(NA)

1/ Excludes April and May data for Maui County.
NA Not available.
Source: County building departments.

Table 7-5
HONOLULU CONSTRUCTION COST INDEXES: 1983 TO 1990

[1982=100]

Year	Single-family residence			High-rise building		
	All components	Material prices	Labor 1/	All components	Material prices	Labor 1/
1983	109.5	111.3	107.3	106.9	107.4	106.7
1984	114.3	113.1	115.8	110.9	108.0	114.2
1985	117.4	115.2	120.1	113.5	108.7	118.2
1986	121.5	119.1	124.4	116.8	110.8	122.4
1987	125.7	123.7	128.2	120.7	114.9	125.8
1988	132.8	133.2	132.2	126.1	121.6	129.9
1989	138.5	137.2	140.3	133.2	126.7	138.8
1989: 1 Q	137.1	136.0	138.6	131.4	125.3	136.5
2 Q	138.6	138.3	139.0	132.8	127.4	137.4
3 Q	138.3	136.6	140.5	132.9	125.8	139.1
4 Q	140.1	137.8	143.1	135.7	128.4	142.0
1990: 1 Q	140.6	136.9	145.3	135.6	126.5	143.5
	Percent change from corresponding period in previous year					
1983	9.5	11.3	7.3	6.9	7.4	6.9
1984	4.3	1.6	7.9	3.8	0.6	7.0
1985	2.7	1.9	3.7	2.4	0.6	3.5
1986	3.5	3.4	3.6	2.9	1.9	3.6
1987	3.5	3.8	3.0	3.4	3.7	2.8
1988	5.6	7.7	3.2	4.4	5.9	3.4
1989	4.3	3.0	6.1	5.6	4.2	6.9
1989: 1 Q	3.2	1.3	5.8	4.0	0.8	6.7
2 Q	6.0	6.5	5.3	6.8	8.1	5.9
3 Q	4.2	3.0	5.8	5.7	5.1	6.3
4 Q	3.9	1.2	7.6	5.9	2.9	8.4
1990: 1 Q	2.6	0.7	4.8	3.2	1.0	5.1

1/ Includes wages and benefits.

Source: First Hawaiian Bank, Research Division.

Table 8-1
RECENT ECONOMIC AND DEMOGRAPHIC TRENDS: STATE OF HAWAII

Series 1/	Unit	Period 2/	Number	Percent change from same period in previous year
Resident population (p)	Persons	7/1/89	1,112,100	1.5
City and County of Honolulu	Persons	7/1/89	841,600	0.6
Hawaii County	Persons	7/1/89	122,300	4.4
Kauai Island	Persons	7/1/89	50,700	3.5
Maui Island	Persons	7/1/89	88,100	5.0
Molokai	Persons	7/1/89	6,900	3.0
Lanai	Persons	7/1/89	2,200	0.0
Niihau	Persons	7/1/89	210	1.4
Personal income	$ Million	1989	20,358	10.7
Consumer price index (CPI-U):				
Honolulu	(1982-84 = 100)	1989	128.7	5.8
U.S.	(1982-84 = 100)	1989	124.0	4.8
Construction:				
Private permits 3/	$ Million	Jan-May	779.8	6.9
Residential permits 3/	$ Million	Jan-May	451.7	34.0
New single-family units 3/	Number	Jan-May	2,769	24.6
New multi-family units 3/	Number	Jan-May	799	-21.5
Commercial & industrial 3/	$ Million	Jan-May	130.4	-45.9
Additions & alterations 3/	$ Million	Jan-May	197.8	30.9
Government contracts awarded	$ Million	Jan-May	186.7	-28.6
Construction cost indexes (Hon):				
Single-family units	(1982 = 100)	Jan-Mar	140.6	2.6
High-rise buildings	(1982 = 100)	Jan-Mar	135.6	3.2
Employment (p):				
Civilian labor force	Persons	Jan-Mar	529,450	2.1
Civilian employment	Persons	Jan-Mar	513,550	1.8
Civilian unemployment	Persons	Jan-Mar	15,900	10.4
Unemployment rate	Percent	Jan-Mar	3.0	-
Total jobs	Number	Jan-Mar	565,900	5.0
Visitor industry:				
Total visitors (p)	Number	Jan-May	2,795,550	4.0
Westbound	Number	Jan-May	1,931,910	0.5
Eastbound	Number	Jan-May	863,640	12.9
Hotel/condo units for visitor use	Number	1989	68,189	-1.2
Defense expenditures (p)	$ Million	1989	2,038	(NC)
Sugar production (p)	$ Million	1988	324.0	-3.5
Pineapple sales (p)	$ Million	1989	242.0	-2.0

p Provisional estimates.
NC Not comparable
1/ Statewide data, unless indicated otherwise.
2/ Data for 1990, unless otherwise noted.
3/ Excludes April and May data for Maui County permits, percentages based on comparable coverage.